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ABSTRACT

The Lyndon B. Johnson School of Public Affairs has established interdisciplinary research on policy problems as the core of its educational program. A major part of this program is the policy research project, in the course of which three faculty members, each from a different profession or discipline, and about 15 graduate students with diverse backgrounds, research a policy issue of concern to an agency of government. This document is a report of one of the policy research projects conducted during 1973-74. Following a brief overview of the postsecondary education organizational environment in Texas (chapter 2), consideration is given (chapter 3) to county-to-institution student flows and their implications for institutional development. Statistical analysis of the Austin-San Antonio region of Texas is provided in chapter 4. Chapter 5 approaches institutional and program development from a regional perspective and examines in detail the intrainstitutional program development procedures and interinstitutional coordination in the Austin-San Antonio region. Areas for future investigation are noted in chapter 4. (Author/KE)

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POLICY RESEARCH PROJECT REPORT

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Number 8

POST-SECONDARY EDUCATION PLANNING IN TEXAS:

TECHNIQUES FOR POLICY ANALYSES

HE 006 576

A Report by
The Post-Secondary Education Policy Research Project
Lyndon B. Johnson School of Public Affairs
The University of Texas at Austin
1975

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FOREWORD

The Lyndon B. Johnson School of Public Affairs has established interdisciplinary research on policy problems as the core of its educational program. A major part of this program is the policy research project, in the course of which three faculty members, each from a different profession or discipline, and about fifteen graduate students with diverse backgrounds research a policy issue of concern to an agency of government. This "client orientation" brings the students face to face with administrators, legislators, and other officials active in the policy process, and demonstrates that research in a policy environment demands special talents. It also illuminates the difficulties of using research findings to bring about change where political realities must be taken into account.

Post-Secondary Education Planning in Texas: Techniques for Policy Analyses is a report of one of the LBJ School's policy research projects conducted during 1973-74. Other publications resulting from this post-secondary education project, which was conducted for the Coordinating Board, Texas College and University System, include the *Texas Atlas of Higher Education* and the *MAPPER Users Manual*. These reports seek to describe analytic techniques developed by project participants to more effectively assess student demand/supply patterns and their impact upon the policies and practices of state agencies and education institutions.

The intention of the LBJ School is both to develop men and women with the capacity to perform effectively in public service and to produce research that will enlighten and inform those already engaged in the policy process. The project which resulted in these reports has helped to accomplish the former; it is our hope and expectation that the reports themselves will contribute to the latter.

William B. Cannon
Dean

PREFACE

This document is the third publication resulting from the Post-Secondary Education Policy Research Project conducted by the Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin, during the academic year 1973-74. The purpose of the project is to assist state and education institution officials in the development of improved methods and processes for more effectively analyzing data and making decisions in the educational environment faced with planning issues in Texas.

Critically important in the completion of this project have been the unflagging efforts of LBJ School faculty and student participants in the policy research project. The staff of the Coordinating Board, Texas College and University System provided invaluable assistance. Supply and demand issues and data were discussed with administrative and staff personnel from the Texas Education Agency; the Texas Advisory Council for Technical-Vocational Education; the Texas Employment Commission; the Texas Industrial Commission; the Office of Information Services, The Office of the Governor; the Texas Association of Proprietary Schools; the Association of Independent Colleges and Universities of Texas; and the education committees of the Texas State Legislature. Project participants also visited a range of post-secondary education institutions in Texas, as well as individuals in federal regional offices and in selected other states. The Bureau of Business Research of The University of Texas at Austin designed the map-generating computer program forming the basis of the project's first two publications, the *Texas Atlas of Higher Education* and the *MAPPER Users Manual* *

We are grateful to many other individuals who have contributed to the success of this project but are, unfortunately, too numerous to list here. The project was partially supported by Ford Foundation funds and by a planning grant awarded under Title I of the Higher Education Facilities Act of 1963, as amended, from the Division of Academic Facilities of the U.S. Office of Education, through the Coordinating Board, Texas College and University System.

Kenneth W. Tolo
Project Director

*The *Atlas* and the *Users Manual* are also available from The Office of Publications, the Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin, Austin, Texas, 78712.

POLICY RESEARCH PROJECT PARTICIPANTS

Michael Berrier, *B.A. (Philosophy), The University of Texas at Austin*
Dave Fege, *B.A. (Economics), Kalamazoo College*
Lydia Gardner, *B.A. (Government and History), Southwestern University*
Barbara Parness, *B.A. (Journalism), Michigan State University*
Carrie Sewell, *B.A. (Sociology), The University of Texas at Austin*
Abdul Shakawy, *A.B. (Government), Indiana University*
Patricia Siemen, *B.A. (History), Siena Heights College*
Karl Spock, *B.A. (Economics), The University of Texas at Austin*
Robin Tillman, *B.A. (Government), The University of Texas at Austin*
Melvin Waxler, *B.A. (Government and Psychology), The University of Texas at Austin*
Janet Weiskott, *B.A. (Economics), Brooklyn College*
David West, *B.A. (Political Science), Austin College*
James Williamson, *B.A. (Government), The University of Texas at Austin*
Jan Younglove, *B.A. (Sociology), The University of Texas at Austin*

James A. Fitzsimmons, *Associate Professor of Management; B.S.E. (Engineering), University of Michigan; M.B.A. (Business Administration), Western Michigan University; Ph.D. (Management), UCLA*

Kingsley E. Haynes, *Associate Professor of Public Affairs; B.A. (History, Geography, Political Science), Western Michigan University; M.A. (Geography), Rutgers University; Ph.D. (Geography and Environmental Engineering), The Johns Hopkins University*

Kenneth W. Tolo, **Project Director**, *Associate Professor of Public Affairs; B.A. (Mathematics), Concordia College, Moorhead, Minnesota; M.A. (Mathematics), University of Nebraska, Lincoln; Ph.D. (Mathematics), University of Nebraska, Lincoln; M.A. (Public Affairs), University of Minnesota*

SUMMARY

Post-secondary education decisionmakers in Texas must be able to effectively assess both current and proposed policies in the context of student and employer demand/supply patterns. The policy research project has identified and developed several approaches for examining such information. These approaches, together with recommended applications and courses of action, are excerpted here.

TEXAS ATLAS OF HIGHER EDUCATION; MAPPER USERS MANUAL

These research techniques and documents enable education planners to identify changes and trends in institutional enrollments and student service areas. Decisions on facility and program development can then be based upon the needs of the population served (e.g., regional rather than statewide). Institutional "marketing" strategies can be improved by focusing on appropriate geographic areas, program concentrations, and student groups. Recommended courses of action include:

- The *Atlas* should periodically be updated and expanded in its coverage (e.g., to include proprietary schools).
- The MAPPER system should be modified to produce maps showing student flows by educational program and/or by student type (e.g., minority, undergraduate/graduate).
- The MAPPER system could be applied to sub-state regions of Texas, using the county rather than the institution as the focal unit, to provide more detailed characterizations of regional needs and flows.

STATEWIDE REGRESSION ANALYSIS

County-specific variables thought to be associated with institutional enrollment variations by county (both total participation and rate of participation) are identified and analyzed. In order to increase the utility of this analysis for education planners in Texas, efforts such as the following are recommended:

- Student-specific variables (e.g., sex, ethnic background, educational attainment level(s) of parent(s), undergraduate/graduate status) should be included in the regression analysis to improve its predictive capability.
- The Coordinating Board's Uniform Reporting System should be the primary source of state student-specific information, and should be expanded both in the scope of the questions and in the range of institutional respondents.
- Improved techniques for obtaining information on students' educational preferences (institutional and geographical, as well as programmatic) need to be implemented, with the results incorporated into the analysis.
- Methods for updating and otherwise improving county-based information should be sought (e.g., collecting information at the smallest feasible geographic level).

STUDENT ALLOCATION MODEL

This approach seeks to estimate an institution's "drawing power" regarding potential students through county information on student demand (i.e., preference) for various types of post-secondary education institutions.

- Current information on student flows and on present and planned institutional student capacities must be obtained and incorporated into the model to achieve a significant level of predictability.

INSTITUTIONAL SERVICE AREA ANALYSIS

An application of the *Atlas* and *MAPPER Users Manual* techniques to sub-state regions of Texas, the institutional service area analysis can further refine both regional county-to-institution student flows and the extent to which a (regional) county's student population receives its post-secondary education within the region. An improved understanding of institutional service areas is critically important for policy decisions related to such issues as program and facility development (e.g., whether to provide additional student residential space or commuter parking lots). Recommendations are similar to those relating to the *Atlas* and *Manual*, with primary emphasis on integrating the institutional service area analysis with the project's other analytic approaches.

INSTITUTIONAL PROGRAM DEVELOPMENT

An institutional survey and a series of in-depth institutional analyses in the Austin-San Antonio region reveal

substantial interaction both within the public and private collegiate sector and within the proprietary school sector. Between the two sectors, however, there is minimal communication. Program development responsibility in the examined institutions is generally assumed by faculty personally interested in the new program—but often uninformed about sources of supply/demand information. Varying emphasis is placed upon student and employer demand. All institutions, however, would likely benefit from improved techniques for better understanding present demand (e.g., student flows) and anticipating future requirements. Recommended steps for improving this process include:

- Post-secondary education institutions of all types could strive harder to incorporate the planning concerns of other institutions in their respective service areas into their planning and decisionmaking processes.
- The institutional responsibility for investigating the feasibility and desirability of new programs in the context of present and projected student and employer demand should be assigned to a single institutional office, with appropriate statewide coordination exercised by the staff of the Coordinating Board.
- The feasibility of using sub-state jurisdictions (e.g., councils of government) as clearinghouses for supply/demand information related to post-secondary education program and facility development should be more closely examined.
- Guidelines for the establishment and operation of vocational education advisory committees should be reviewed.
- Additional student information concerning both pre-matriculation interests and follow-up/placement data is necessary for effective institutional program development and state-level coordination.

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CHAPTER I

INTRODUCTION

Education beyond the high school level has become one of the largest enterprises in the United States. The annual enrollment in the nation's approximately 3,000 public and private institutions of higher education exceeds nine million students, while the estimated 7,000 post-secondary proprietary schools annually enroll several million additional students.* The total income annually received by post-secondary education institutions now exceeds $30 billion. (*National Committee on the Financing of Post-Secondary Education* 1973: 14, 16, 67, 431)**

The Texas profile is similarly impressive. Presently serving the academic and vocational post-secondary needs of the state are over 125 colleges, institutes, and university centers, plus several hundred proprietary schools. Fall 1973 enrollments in Texas colleges and universities totaled 452,000, placing the state third among all the states; earned degrees conferred by these institutions in 1972 exceeded 45,000 (HEW 1974: 69,94). Estimated annual completions in Texas proprietary schools is approaching 20,000 (Advisory Council 1974). State and federal funding appropriated through the state's appropriations act for fiscal year 1974 totalled $618 million for the senior colleges and universities and $106 million for Texas State Technical Institute (TSTI) and the junior colleges (Advisory Council 1974).

The tremendous growth of education in the 1950s and 1960s led most states in the nation to create and expand the scope of their state boards and agencies responsible for post-secondary education. The orderly and effective development of post-secondary education has been a difficult objective to achieve, however. Not only has the public sector frequently developed in isolation from the private sector, but also vocational programs—both public and private—have evolved apart from academic programs. Clearly needed are planning perspectives and techniques that are able to provide greater insight concerning the environment within which such coordination must occur.

RECENT TRENDS

Current social and economic trends make state-level coordination even more imperative. If current national population trends persist, for example, it is unlikely that post-secondary education will remain a growth industry. The number of five-year-olds in the United States declined 15 percent between 1960 and 1970. The nation's birth rate is at its lowest point in history, and it has not yet stabilized: the number of births dropped three percent between 1970 and 1971—and nine percent between 1971 and 1972. The Bureau of the Census projects a substantial decline in the number of college-age youth in the 1980s, and further declines are likely after 1990 unless the live birth rate increases in the near future (Glenny 1973). A recent projection prepared for the Carnegie Commission (1973) also indicates a sharp decrease in the rate of college and university enrollment growth in the 1970s, followed by an absolute decline in enrollment in the following decade.

Similar population trends are likely in Texas. The percentage increase in the state's population between 1960 and 1970 was less than the 1950-1960 percentage increase; in addition, there were 108,200 fewer births in Texas in 1960-1970 than in the preceding decade (Bradshaw and Poston 1971: 105). A recent study by The University of Texas Population Research Center (Poston *et al*. 1973) also suggests that the number of college-age youth will begin to decline in all areas of the state in the late 1970s.

In recent years there has also been a growing recognition that a college degree is not the only route to success in our society and that vocational education plays a very significant role. Consequently, the rate of enrollment increase has been much greater in proprietary and industrial schools than in traditional higher education institutions. This trend

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*"Higher education" refers to the collegiate sector, and includes community colleges, four-year liberal arts colleges, major research universities, professional schools, and similar institutions. "Post-secondary education," as used in this report, consists of higher education plus other learning opportunities offered by certified educational institutions that primarily serve persons who have completed secondary education or who are beyond the compulsory school attendance age. "Fost-secondary education" includes proprietary schools, i.e., privately-operated business enterprises that provide specific training in occupation-related skills, whereas "higher education" does not.

**For complete bibliographic information, see page 75.

is likely to continue, particularly if federal student aid becomes available in greater amounts for proprietary school enrollees. In addition, 85 percent of the increase in recent years in the number of first-time students in collegiate institutions occurred in community colleges, further impacting the operation of senior colleges and universities (Glenny 1973).

Program and appropriations trends in Texas bear out this increased interest in post-secondary vocational education. For instance, the number of industrial occupation programs has increased from 35 to 357 since 1966, while technical occupation programs have jumped from 39 to 133. As state appropriations for junior colleges and TSTI increased from $38 million to $117 million between fiscal years 1969 and 1974, the amount allocated to occupational (rather than academic) programs increased from 30 percent to more than 45 percent. Enrollments in public post-secondary occupational programs in Texas have increased from 6,600 in 1962-63 to almost 80,000 in 1973-74; further increases are also likely, since secondary vocational education enrollments have increased from 167,000 to 412,000 over the same period. (Advisory Council 1974)

1202 COMMISSIONS

Recognizing the implications of these (and other) emerging trends, post-secondary education organizations and institutions (including the Education Commission of the States and the State Higher Education Executive Officers Association) pressed Congress prior to the enactment of the 1972 Education Amendments (Public Law 92-318) to assist the states in developing coordinated post-secondary education delivery systems. Arguments cited in support of such action included:

- the current number and variety of public and private institutions in each state;
- the apparent imbalance between manpower needs, student interests, and educational programs;
- the scarcity of resources for post-secondary education;
- the increased recognition of the desirability of institutional and programmatic complementation, rather than duplication and competition; and
- the emergence of new or improved management and planning techniques for post-secondary education institutions and systems. (U.S. House of Representatives 1971: 804-811)

Responding to these expressed needs, Congress included in the 1972 Education Amendments an authorization (Section 1202) for financial and technical assistance to states desiring to create new agencies or designate existing agencies as State Post-Secondary Education Commissions ("1202 Commissions") (20 U.S.C. 1142a). These 1202 Commissions were to be "broadly and equitably representative of the general public and of public and private nonprofit and proprietary institutions of post-secondary education in the state," including junior colleges, area vocational schools, technical institutes, and four-year colleges and universities. The functions of each Commission were to include the initiation of comprehensive inventories and studies of all public and private post-secondary education resources in the state, as well as the development of plans related to vocational education.

In the latter half of 1972 and early 1973, the United States Office of Education (USOE) actively sought to develop regulations for the appointment, operation, and funding of the 1202 Commissions. During this period, Texas was one of 13 states to respond, with Governor Preston Smith designating the Coordinating Board, Texas College and University System as the state's 1202 Commission. Upon assuming office in January 1973, Governor Dolph Briscoe affirmed this designation. On March 7, 1973, however, the U.S. Commissioner of Education announced that 1202 Commissions were unnecessary in view of the program cuts included in President Nixon's proposed fiscal year 1974 budget and set aside plans for their implementation.

Following a year of inaction, USOE in March 1974 asked each state whether or not it wanted to establish a 1202 Commission. This action was at least partially sparked by Congressional language in the fiscal year 1974 education appropriations bill which directed that a substantial portion of a $3 million allocation for state education commissions should be made available to the 1202 Commissions for planning purposes (*The Chronicle of Higher Education* 1974).

In April 1974 Governor Dolph Briscoe of Texas responded affirmatively to USOE. Rather than designating an existing board as the Texas 1202 Commission, however, he created the 17-member Governor's Advisory Committee on Post-Secondary Education Planning to fulfill the Commission's responsibilities. These responsibilities include a review of the state's present post-secondary educational planning process, particularly with respect to the quality and availability of planning data and the suitability of present administrative/governance structures.

Whether or not the establishment of the Governor's Advisory Committee is viewed as a permanent resolution of the 1202 Commission issues is unclear, as is the level of effectiveness it will be able to achieve in its planning and coordination efforts. It is very likely, however, that the Coordinating Board and its staff will assume a major role in future 1202 Commission-related planning activities. The analyses and materials described herein should provide assistance in these efforts.

PROJECT DEVELOPMENT

Preliminary planning for this project began in the LBJ School of Public Affairs in the spring and summer of 1973, following the initial designation of the Coordinating Board, Texas College and University System as the state's 1202 Commission. The Board needed to broaden its information base and policy analyses related to supply and demand issues in both the academic and vocational sectors, and this project was initiated to complement the Board's efforts in meeting anticipated increased planning responsibilities.

The first phase of the project culminated in a report describing the current organizational environment in Texas within which post-secondary education decisions are made and issues raised (LBJ School 1974a). A major final product of the policy research project is the *Texas Atlas of Higher Education* (LBJ School 1974b), a comprehensive series of maps depicting enrollments in the state's public and private institutions of higher education (including TSTI), by county of student origin, for the years 1968 and 1972. A related project publication, the *MAPPER Users Manual* (LBJ School 1974c), provides documentation for the *Atlas* and discusses useful modifications in the computer-generated mapping techniques.

This final summary report of this LBJ School Policy Research Project on post-secondary education planning in Texas seeks to integrate the research efforts underlying the above publications with related demand/supply analyses. Following a brief overview of the post-secondary education organizational environment in Texas (Chapter II), consideration is given in Chapter III to county-to-institution student flows and their implications for institutional development. Statistical analyses of variations in student enrollments are included, as are analyses based upon a student allocation model. The application of the statewide analysis in Chapter III to the Austin-San Antonio region of Texas is illustrated in Chapter IV. Chapter V approaches institutional and program development from a regional perspective, examining in detail intra-institution program development procedures and inter-institution coordination in the Austin-San Antonio region. Areas for future investigation are noted in Chapter VI.

CHAPTER II

POST-SECONDARY EDUCATION IN TEXAS: THE ORGANIZATIONAL ENVIRONMENT

The environment within which post-secondary education institutions and policies in Texas function is composed of state education agencies, advisory boards, interagency committees, voluntary associations of schools, and legislative committees. Apart from the Governor's Office and the Texas State Legislature, the major components of this environment are the State Board of Education and its administrative staff, the Texas Education Agency; and the Coordinating Board, Texas College and University System and its staff. These and selected other organizations are briefly discussed in this chapter to provide a framework for the analyses in subsequent chapters; further details on these agencies, boards, and related bodies are included in an earlier project report (LBJ School 1974a).

STATE BOARD OF EDUCATION; TEXAS EDUCATION AGENCY (TEA)

In 1949, as a result of the Gilmer-Aikin Act, a major reorganization occurred in the management of public education in Texas. In place of the elected State Superintendent of Public Instruction and the appointed State Board of Education, the 51st Texas Legislature established a central education agency composed of an elected State Board of Education, which operates as the State Board of Vocational Education when considering vocational-technical matters; a Board-appointed Commissioner of Education; and a professional, technical, and clerical staff known as the Texas Education Agency (LBJ School 1972). Members of the Board, one elected from each of the state's 24 Congressional districts for a six-year term, convene regularly to review the state's educational needs, to adopt plans to meet those needs, and to evaluate education programs under its direction.

TEA, the administrative unit of the State Board, has consisted of four departments: Occupational Education and Technology, Administration, Teacher Education and Instructional Services, and Special Education and Special Schools. (A reorganization is currently being implemented.) Of these four, the first has been most significantly involved in post-secondary education issues and activities in Texas.

Specifically charged with administering vocational-technical programs and certifying Texas proprietary schools, the Department of Occupational Education and Technology consists of five operating divisions. The Division of Adult and Continuing Education provides consultative services to local agencies in the development and coordination of adult education, civil defense, and manpower training programs, approving program applications and developing evaluation procedures. The Division of Occupational Research and Development advises, assists, monitors, and coordinates research projects in occupational education developed and implemented by school districts, post-secondary institutions, and others. The Division of Public School Occupational Programs is primarily concerned with the development and accreditation of vocational-technical programs in public high schools. The Division of Post-secondary Occupational Education and Technology provides post-secondary institutions with technical assistance for the development, maintenance, and financing of vocational-technical programs. The functions of the Division of Proprietary Schools and Veterans Education include advising, certifying, and regulating proprietary schools, as well as approving programs and teacher qualifications for the training of veterans.

Responsibilities delegated to TEA in the area of post-secondary education have necessitated its involvement in vocational-technical program development, financial management, and proprietary school certification. With respect to program development, TEA reviews proposed vocational programs submitted by community colleges for approval prior to receipt of state or federal support and evaluates existing vocational-technical programs, services, and activities. Financial management responsibilities of TEA include the verification of programs and program funding requests in the budget submissions of the state's community colleges.

An expanding area of post-secondary education responsibility within TEA in the past three years has been the certification and regulation of proprietary schools and their programs under the Texas Proprietary School Act of 1971 (Texas Education Code 1972: Chapter 32). This act expressly prohibits any non-exempted proprietary school from advertising, soliciting for, or conducting any course of instruction in Texas without first obtaining a certificate of approval from TEA stating that it provides quality training

by qualified instructors and administrators in adequate facilities. Furthermore, the school must be financially sound, maintain proper student records, implement an approved tuition refund policy, and obtain a bond to cover damages or expenses resulting from violations of these regulations. The certificate of approval must be renewed each year and may be revoked by TEA if violations occur. The number of schools holding current certificates of approval was 239 as of November 5, 1973.* About 200 of these schools have their headquarters in Texas. As an indication of the scope of TEA's responsibility in this area, between January 1972 and May 1973 approximately 450 proprietary schools were visited at least once by TEA representatives, with 300 visited at least twice (TEA 1973b). By recently undertaking evaluations of various courses and curricula, tuition refund policies, and interruption policies for unsatisfactory attendance in affected proprietary schools, TEA is seeking to place regulation of proprietary schools on a more comparable basis with other recognized public and private post-secondary education institutions in Texas.

COORDINATING BOARD

In 1955 Texas statutorily recognized the need for a central coordinating institution in the field of higher education by creating the Texas Commission on Higher Education. Unfortunately, the Commission's success was limited by a lack of money and its inability to effectively coordinate program development and facilities construction. State responses to these difficulties culminated in the passage of the Higher Education Coordinating Act of 1965 (House Bill 1, Texas State Legislature) which established the Coordinating Board, Texas College and University System.

The Coordinating Board is composed of 18 members appointed by the governor, with the approval of the Texas Senate, for overlapping six-year terms; the chairman and the vice chairman are designated by the governor. A Commissioner of Higher Education, appointed by the Coordinating Board, serves at the Board's pleasure and is the chief executive officer of the staff. The staff numbers less than 100 individuals, constituting five administrative units: the Division of Financial Planning, the Division of Administration, the Division of Program Development, the Division of Student Services, and the Division of Campus Planning and Physical Facilities Development (Coordinating Board 1971; Coordinating Board staff interviews 1974).

With this organizational structure the Coordinating Board endeavors to carry out its statutory mandate to provide "leadership and coordination for the Texas higher education system" (Texas Education Code 1972: Section 61.002). With the exception of public community college programs (subject to the approval of the State Board for Vocational Education) and community college construction (financed by local property taxes), the Coordinating Board is authorized to coordinate the activities of the state's public colleges and universities. It is also instructed to cooperate with the independent institutions of higher education, coordinating programs with them within constitutional and statutory limits and considering their degree and certificate programs prior to authorizing new collegiate programs in public institutions.

Statewide planning and coordination is pursued by the Coordinating Board and its staff in four basic areas: institutional development, program development, financial management, and facilities planning. In matters of post-secondary institutional development, the Board must advise the legislature as to the state's need for a new public four-year institution before such an institution may be authorized. The creation of a public community college, designed to provide general collegiate education, technical training, and compensatory and continuing education, is not subject to this statutory requirement. Because the Coordinating Board believes all potential students in the state should be within reasonable distance of such a college, it has divided the state into 53 geographic regions. These regions represent groupings of potential community college students and areas within which at least one community college is feasible within the next decade or two (Coordinating Board 1968a). These regions do not represent taxing jurisdictions; nor do they restrict the attendance of students at colleges outside the region in which they reside.

Prior to the creation of a new community college district, the proposed district must have the minimum assessed valuation, the community need for a college, the potential student clientele, and the financial ability to support the creation and operation of the institution. The initial step in the creation of a community junior college is a local responsibility. A steering committee is customarily appointed to serve as liaison between the local community and the Coordinating Board. Responsible for conducting a local survey of the needs and potential of the area, the steering committee prepares and presents to the Coordinating Board a petition certified by the appropriate county board(s) of education. The Coordinating Board is required by state law to consider the needs and welfare of the state and the welfare of the community involved before acting on the request. Favorable Board action then results in a local election.

As a result of Senate Resolution 209 adopted by the 63rd Legislature in the spring of 1973, there presently

*This figure was secured, with the permission of TEA, from a proprietary school file in the Division of Proprietary Schools and Veterans Education, Department of Occupational Education and Technology, which lists those schools holding a TEA certificate of approval.

exists a temporary moratorium on the creation or expansion of public colleges and universities in Texas. The long-term impact of this resolution on institutional development policies in Texas is still unknown.

With respect to program development, a public senior college or university must secure the approval of the Coordinating Board prior to the implementation of a new degree program. At the community college level, Board approval must be obtained for specific academic courses that parallel lower division university courses. This is to insure full transfer of all credits to Texas public senior colleges and universities. Exceptions are made if (1) the college is able to substantiate a "unique need" for the course, or (2) the college is required to offer compensatory education courses to fulfill the commitment of an admissions policy encouraging the enrollment of disadvantaged students.

The Coordinating Board influences the approval and funding of vocational-technical programs through its participation, together with the State Board of Education (i.e., the State Board for Vocational Education) and the Advisory Council for Technical-Vocational Education, in the Joint Committee (Texas Education Code 1972: Section 31.81). The more informal Joint Program Review Committee, in operation prior to the establishment of the Joint Committee in 1969, was organized to accommodate the overlapping jurisdictions of the Coordinating Board and the State Board of Education with respect to vocational-technical programs offered in the community colleges.

In addition, the Coordinating Board has the power to order the "deletion or consolidation of any courses. . . (of senior as well as community colleges and universities) . . . after giving due notice with reasons for that action and after providing a hearing if one is requested by the governing board involved" (Texas Education Code 1972: Section 61.052). However, the agency rarely exercises this control, for two reasons: (1) the Board does not have the staff necessary to effectively implement such a control, given its present scheme of priorities; and (2) Coordinating Board intervention in the area of course approval raises the emotional issues of institutional autonomy and academic freedom.

As resources for higher education have increased at a diminishing rate, financial management has become a more important responsibility for the Coordinating Board. The primary duty of the Board in this area is to develop, with the assistance of representatives from Texas senior colleges and universities and community colleges, appropriations formulae providing an equitable distribution of state general revenue funds. Formulae for senior colleges have been approved in ten areas: General Administration and Student Services, Faculty Salaries, Departmental Operating Expenses, Library, Organized Research, Building Maintenance, Custodial Services, Instructional Administration, Faculty Development Leaves, and Faculty and Staff Group Insurance. Formulae allocations constitute about 85 percent of the state's appropriations for senior colleges and universities, with about 15 percent allocated for specific purposes to individual institutions.

In 1972 the Coordinating Board adopted a new formula to more equitably distribute state appropriations to public community colleges for the 1973-1975 biennium. This new formula computes appropriations for academic programs on the basis of the number of contact hours between the student and teacher during the previous academic year. Appropriations are determined by multiplying the total number of contact hours for each type of course by the rate recommended by the Legislative Budget Board for that course. Those colleges which exceed the contact hours of the previous years (upon which appropriations had been based) receive additional resources from a contingency fund appropriated by the legislature to eliminate such deficits.

The Coordinating Board and its staff also:

- provide enrollment projections for state senior institutions to be used in determining the distribution of funds collected through the state *ad valorem* property tax;
- recommend tuition policies for the different types of public colleges and universities in Texas; and
- recommend to the governor and the Legislative Budget Board supplemental contingency appropriations to provide for increases in enrollment at the public institutions of higher education in Texas.

A fourth area of Coordinating Board responsibility is that of campus and facilities planning. While the institutional expansion of the 1960s was required to meet increasing enrollments in higher education during that period, the 1970s require more careful planning, with projected enrollment stabilization and the continuing need for up-to-date and complete facilities on state campuses taken into account. Included among the campus planning functions of the Coordinating Board and its staff are the determination of space utilization formulae for all educational and general buildings and facilities at higher education institutions, and the approval or disapproval of all major construction and rehabilitation of educational institutions when such improvements are financed from funds other than the *ad valorem* tax receipts of public community colleges. (The Board, however, exercises no powers of approval with regard to projects financed out of the Permanent University Fund.) Private institutions are encouraged to participate in the Board's planning activities.

No state funds are appropriated for campus planning and facilities development for public community colleges, nor does the Coordinating Board have jurisdiction over construction financed by local property taxes. However, the Coordinating Board does inform the community colleges of existing federal grants and loans for which they may qualify

and apply and, if desired, assists them in developing long-range plans for campus development.

OTHER INSTITUTIONS AND ASSOCIATIONS

A variety of other voluntary associations, advisory bodies, state agencies, and institutions also help shape the post-secondary education environment in Texas.

Advisory Council for Technical-Vocational Education in Texas

As a result of a report submitted in 1967 by the first federal Advisory Council on Vocational Education, the Vocational Education Amendments of 1968 (Public Law 90-576) mandated that state advisory councils on vocational and technical education be created. Although the Texas State Board of Education had appointed a state vocational education advisory council in 1964, the 61st Texas State Legislature in 1969 created (in Senate Bill 261) the Advisory Council for Technical-Vocational Education (Texas Education Code 1972: Chapter 31).

The purpose of the Texas Advisory Council for Technical-Vocational Education is to establish "a climate conducive to the development of technical, vocational, and manpower training in educational institutions in the State of Texas to meet the needs of industrial and economic development of the state." It is to plan, recommend, and evaluate "educational programs in the vocational-technical, adult education, and manpower training areas at the state level in the public secondary and post-secondary educational institutions and other institutions" (Texas Education Code 1972: Section 31.31).

One responsibility of the Advisory Council is to participate, together with the Coordinating Board and the State Board for Vocational Education, on the Joint Committee. Other responsibilities include providing up-to-date data on state employment opportunities and carrying out studies and forums on vocational education initiated by the Advisory Council itself, the State Board for Vocational Education, the governor, the state legislature, the Legislative Budget Board, and other state agencies.

The Advisory Council consists of 21 citizens recommended by the governor, appointed (for overlapping six-year terms) by the State Board of Education, and confirmed by the Texas Senate. The members must be selected in accord with 17 specific membership categories, with approximately one-third educators, one-third corporation executives, and one-third representatives of various special groups.

It is important to emphasize the *advisory* nature of the Texas Advisory Council for Technical-Vocational Education. It participates neither in the allocation of funds nor in the administration of programs. The Advisory Council believes that such an approach would compromise its objective and independent evaluations, its plans, and its recommendations. Moreover, the State Board for Vocational Education has the final authority to accept or reject any recommendation of the Advisory Council (Texas Education Code 1972: Section 31.39).

Association of Independent Colleges and Universities of Texas

The Association of Independent Colleges and Universities of Texas (ICUT) represents the private colleges and universities of Texas before state agencies, the Governor's Office, and the State Legislature. Although ICUT has no formal representation on the Coordinating Board, the latter does consider the activities of ICUT member institutions in its coordination and planning.

In 1967, for instance, the Coordinating Board sponsored an ICUT study of Texas independent colleges and universities which included among its recommendations that the existing physical facilities and programs of independent schools should be recognized in Coordinating Board planning as a means of fulfilling state needs. More recently, the Coordinating Board recommended and the Texas State Legislature passed a state tuition equalization program to partially offset the economic incentives for Texas citizens to attend public colleges and universities.

Texas Association of Proprietary Schools (TAPS); Proprietary School Advisory Commission

Other than through the certification process involving non-exempted proprietary schools in Texas and the Division of Proprietary Schools and Veterans Education, Texas Education Agency, interaction between the state post-secondary education agencies and the proprietary school sector occurs primarily through the Texas Association of Proprietary Schools (TAPS) and the Proprietary School Advisory Commission.

TAPS, formed in 1970 by the merger of the United Business Schools Association and the Texas Association of Trade and Technical Schools, represents the interests of its member schools to state agencies, the State Legislature, and the Governor's Office. Proprietary schools in Texas also maintain limited contact through TAPS with the National Association of Independent Colleges and Schools and the National Association of Trade and Technical Schools.

The Proprietary School Advisory Commission, created by the 1971 Texas Proprietary School Act, consists of nine members appointed by the State Board of Education to overlapping six-year terms. Four members shall be managers or executive officers of proprietary schools covered by this 1971 act; three shall be public school officials; and two shall be distinguished and informed citizens of Texas. The

Proprietary School Advisory Commission acts solely in an advisory capacity to the State Board of Education and TEA.

Texas Employment Commission (TEC)

The Texas Employment Commission (TEC) and TEA work together to provide the vocational-technical training, education, and counseling necessary for individuals to be able to obtain, retain, and perform jobs in the state. For example, local offices of TEC assist instructors of distributive education and industrial cooperative training by screening and selecting high school students for participation in programs directed by TEA. TEC also annually provides information to TEA for the latter's use in submitting required federal data relating to vocational education.

Texas Industrial Commission (TIC)

The Texas Industrial Commission (TIC) is responsible for planning, organizing, and operating a program for attracting and locating new industries in Texas and for promoting the expansion of existing industries in the state. TIC cooperates with TEA in identifying training needs of a new or expanding industry, in locating resources that may be used to provide training, in translating the industry's training needs into programs for training institutions, in establishing training programs, and in assuring that the training programs are properly administered.

TIC has recently worked closely with both TEA and TEC to develop programs designed to help meet the immediate manpower needs of industries considering plant location in Texas. The agencies have also worked together to produce state Industrial Start-up Training programs using the occupational training facilities and capabilities of Texas' junior colleges, the four campuses of Texas State Technical Institute, and many of the state's independent school districts (TIC 1973).

Texas State Technical Institute (TSTI)

As Texas' only state-level public post-secondary education institution providing solely technical training, the Texas State Technical Institute (TSTI) occupies a unique position in the state. TSTI operates as a separate system, independent of the state's community college system. Whereas community colleges in Texas offer vocational-technical programs in conjunction with their regular academic curriculum, all of the TSTI programs are geared toward training students for immediate employment, rather than for broad education in the traditional academic sense.

Nine regents, appointed by the governor, serve as the governing board of TSTI. The main campus is located at Waco, with other branches (all authorized by the Texas State Legislature) at Amarillo, Harlingen, and Sweetwater.

As an independent, state-supported post-secondary education institution, TSTI is funded primarily through direct appropriations by the State Legislature. However, since vocational and technical education programs offered by TSTI are subject to TEA approval, TEA is able to partially affect the funding, programs, and activities of TSTI.

CHAPTER III

STATEWIDE POST-SECONDARY EDUCATION PLANNING: DATA PRESENTATION AND ANALYSIS TECHNIQUES

As described in Chapter I, post-secondary education programs, appropriations, and enrollments in Texas have exhibited dramatic changes within the past decade. Particularly important have been enrollment trends, since they form the primary basis for many program development and financing changes. Whereas only a few years ago colleges and universities were faced with rapidly expanding student populations, enrollments in many of these institutions have now stopped growing or may soon do so. In contrast to this collegiate trend, however, have been the increasing enrollments in the state's post-secondary vocational-technical classes.

Enrollment changes such as these, as well as current social and economic trends, have complicated the higher education–and, more generally, the post-secondary education–planning process in the state. Given changing educational demands, old planning policies cannot be followed rigidly. Instead, education decisionmakers must evaluate shifts in enrollment (i.e., student demand) patterns and their possible causes to assess the changing educational requirements of the state and the need to establish new policies to meet those requirements. Success is not dependent upon the formation of new agencies, committees, or organizational arrangements. Rather, the effectiveness of the new policies will greatly depend upon the quality and utility of the data and the analytic techniques used to describe and explain the state's higher education enrollment patterns.

As part of its study, the Lyndon B. Johnson School of Public Affairs Policy Research Project on Post-Secondary Education Planning in Texas has developed a variety of approaches for examining and analyzing information related to student demand for higher education in Texas. Research results related to the use of one such technique are included in two separate publications: the *Texas Atlas of Higher Education* (LBJ School 1974b), which graphically depicts enrollments in Texas' public and private institutions of higher education, by county of student origin, for the years 1968 and 1972; and an accompanying technical document, *MAPPER Users Manual* (LBJ School 1974c), which provides documentation for the *Atlas* and suggests useful modifications in the computer-generated mapping techniques. Other analytic techniques that have been developed and applied by project participants are a linear regression analysis that examines variations in the enrollment of Texas students in Texas higher education institutions in an effort to explain county enrollment differences using county characteristics, and a student allocation model that seeks to predict likely future student flows in Texas on the basis of existing higher education institutions and programs.

TEXAS ATLAS OF HIGHER EDUCATION

The *Texas Atlas of Higher Education* presents, through a set of more than 200 maps, the 1968 and 1972 enrollment patterns for the state's public and private senior and junior colleges, public technical institutes, and public and private medical, dental, nursing, and allied health schools. The majority of institutions included in the *Atlas* are those identified in "Institutions of Higher Education in Texas, 1972-73" (Coordinating Board 1973b).

The *Atlas* does not contain student enrollment information for the proprietary vocational-technical schools in Texas for two reasons: first, the great number of these institutions precluded their treatment in the available time and space (e.g., the Texas Education Agency currently certifies about 200 such schools); and, second, enrollment data are frequently unavailable for these private schools.

The enrollment pattern maps in the *Atlas* are computer-generated, using a basic program developed by the Bureau of Business Research, The University of Texas at Austin, and modified by LBJ School of Public Affairs project participants. The *MAPPER Users Manual* provides additional details on the production of these maps.

Three kinds of information are provided in these enrollment pattern maps. Taken together, the 1968 and 1972 maps for a given institution show:

- changes in the school's enrollment of Texas residents over this four-year period;
- the school's service area (i.e., the geographic areas of the state from which its students come); and
- shifts occurring in the service area over this time period.

This information can be of central importance in deter-

mining, for example, the need for expanding an institution or creating a new one in the primary service area of an existing institution.

Organization of the Atlas

The *Atlas* is divided into seven sections corresponding to the categories used by the Coordinating Board, Texas College and University System to classify the state's higher education institutions. The sections are titled: (1) Public Senior Colleges and Universities; (2) Independent Senior Colleges and Universities; (3) Public Community Colleges; (4) Independent Junior Colleges; (5) Public Medical, Dental, Nursing, and Allied Health Schools; (6) Independent Medical, Dental, Nursing, and Allied Health Schools; and (7) Public Technical Institutes.

Each of the seven sections begins with a map showing the location of the institutions within that group, plus a listing of the city and county within which each is located. The remainder, and major part, of each section is comprised of the 1968 and 1972 enrollment pattern maps prepared for each school included therein.

Development of the Atlas

It is important that the reader be aware of four decisions involved in the preparation of the *Atlas*, together with their underlying rationales:

1. It was decided that the enrollment statistics in the *Atlas* should indicate only the number of Texas residents attending (as undergraduates or graduates, in the fall term) the state's various higher education institutions.

This decision was obvious, given the focus of the *Atlas* on Texas, but the need for a clear understanding of the limitations of the *Atlas* necessitates its mention.

2. It was decided that the *Atlas* should illustrate 1968 and 1972 enrollment patterns for the institutions included in its contents.

Three reasons underlay this decision. First, time and space constraints made it impractical to prepare more than two enrollment pattern maps for each institution. Second, the desire to give the *Atlas* as much current applicability as possible made it necessary to base one of these two maps on the latest enrollment data available at the start of this project, namely, 1972 data. Finally, the idea that the *Atlas* should show enrollment trends and changes in service areas suggested that the earlier period precede the first by four to six years. The 1968 period was selected because of the relative completeness of enrollment information for that year.

3. It was decided that where inclusion of an institution introduces a special difficulty (e.g., a change from a two-year to a four-year college) a footnote should provide an explanation of the specific situation.

Central to this decision was the desire to increase the usefulness of the *Atlas* by making it comprehensive and easily understood.

4. It was decided that the legend (or key) describing a pair of enrollment pattern maps should be developed separately for each institution.

This decision was necessitated by the extreme variation between schools in total enrollments and county attendance concentrations. After much experimentation it became apparent that a "standardized" legend, or sets of legends, for all maps would not adequately describe the widely divergent enrollment patterns of the institutions in the *Atlas*. In addition, these variations made it impractical to develop enrollment map legends through the general application of a standardized statistical method.

Uses of the Atlas

The *Texas Atlas of Higher Education* is envisioned as a descriptive publication that should be invaluable as a reference and planning document for representatives of higher education institutions and state agencies. Much data are summarized in easily understood form; e.g., the reader can vividly see shifts that have recently occurred in an institution's service area and in the service areas of the various groups of colleges and universities included in the *Atlas*. (Caution should be used in attempting to compare service areas of different institutions, however, because of the varying legends for the maps and the significant differences in total enrollments among schools.)

The *Atlas* maps provide an indication of the role each institution is assuming in the Texas higher education "system." The extent to which an institution has a local, regional, or state focus can be observed, as well as shifts in its scope. Higher education institution administrators can compare their perceptions of their institutions' service areas with those illustrated in the *Atlas*. This would permit institutional advertising and student recruitment efforts to be focused on geographic areas that deserve greater attention, resulting in a more carefully planned marketing strategy.

The rapidly changing focus of higher education in Texas makes it inevitable that the usefulness of the specific data in this edition of the *Texas Atlas of Higher Education* is transitory. However, time should not diminish the importance of this *type* of information in planning for higher education in the state, nor the importance of the *techniques* used in the production of the *Atlas*.

MAPPER USERS MANUAL

A technical publication accompanying the *Texas Atlas of Higher Education* is the *MAPPER Users Manual* (LBJ School 1974c), which describes the computer system

MAPPER and provides documentation for the system modifications used in the production of the *Atlas*. The capability of the MAPPER system to display computer-based geographic data for policy planning is demonstrated in the *Atlas*, and the *Manual* has been produced to share this technique with other education planners in Texas.

It is not uncommon for public agencies to collect considerable data concerning their areas of responsibility. Although the data may be stored in readily accessible computer files, their usefulness for planning and decision-making may be minimal unless presented in a manner that will assist planners in understanding the problems at hand. For example, identification of the enrollment patterns (both spatial and longitudinal) of post-secondary education institutions are important in the state's education planning process. These patterns are frequently difficult to identify through examination of the raw data on students' counties of origin; they are more easily observed, however, when the data are presented in the form of geographic maps shaded according to enrollment concentrations by county.

Maps displaying student flow information or other data of interest to education planners can be produced quickly through MAPPER. Developed by the Bureau of Business Research of The University of Texas at Austin, the MAPPER system consists of two computer programs, MAPDAT3 and MAPPER. The former is a preprocessor program that reads county data from cards and constructs a data file for display. The MAPPER program uses the MAPDAT3 file to generate a choropleth map of county outlines on the CALCOMP plotter for the entire state of Texas (or any smaller region of contiguous counties). County data are displayed on the map through the use of different shading patterns, each of which is associated with a distinct range of data.

A modified MAPPER system (Student Flow Version), the basis for the *Atlas* maps, has been developed by the LBJ School to plot student flows by institution. Modifications include the design of MAPDAT4 and MAPDAT5. The former is a program designed specifically to read from cards student enrollment data by county of origin (i.e., residence) for each Texas institution of higher education. It creates a tape file that in turn is used as input by MAPDAT5, a student flow version of MAPDAT3. The student flow version of MAPPER, called MAPPER2, has been designed to then produce a pair of Texas state maps showing the number of students from each Texas county attending each Texas institution of higher education for two selected academic years. As evidenced by the *Atlas*, the titles and legend are located on the map proper to produce a finished exhibit ready for direct inclusion in a publication.

The Atlas and the Manual: Applications and Conclusions

The *Texas Atlas of Higher Education* has value in and of itself, e.g., as a reference document and as a guide to state and institutional planning (including student recruitment) decisions. So, also, does the modified MAPPER system described in the *MAPPER Users Manual*, for it permits periodic updates of the *Atlas* on the basis of more recent enrollment data.

Potentially more important, however, are other applications of the modified MAPPER system (Student Flow Version) that are feasible and require little additional work. The *Atlas* and this modified version of the MAPPER system are based upon (total) student enrollment data by county of origin by institution. Similar descriptive analyses are also possible for any county-based student enrollment data collected by the institutions. For instance, if institutional enrollment data were collected by educational program, maps could be produced to illustrate student flows *by program* within an institution.

Data availability is the primary stumbling block. Maps could be developed (and map-based analyses performed) which would show an institution's drawing power across Texas in any one of a number of student categories (e.g., seniors, graduate students, male students, Mexican-American students, transfer students, scholarship students). What is necessary, however, is student enrollment data, by institution and county of (student) origin, for the desired student categories. Recent developments with regard to the Coordinating Board's Uniform Reporting System (URS) are encouraging, in that additional student data should now be available annually on an institutional basis.

The *Manual* techniques can also be applied (and extended) at the sub-state level to any set of contiguous Texas counties (e.g., to any or all of the 24 state planning regions). For instance, a computer program has been developed that, for each institution and any county in a selected region of Texas, gives annual data on:

- the number of students in the institution from the designated county;
- the percentage of the regional portion of students in this institution coming from the designated county; and
- the percentage of all Texas students attending the institution coming from the designated county.

The application of such (regional) institutional service area analyses is described in Chapter IV.

A different type of map-based analysis is possible, for either the entire state or a region of the state, with regard to any student category to which the above modified MAPPER system (as extended) applies. Rather than use the institution as the primary unit of representation, it is possible to use the county. That is, for each county in Texas the flow of students from that county to the various institutions of higher education within the state can be pictorially represented.

Straightforward modifications of the *Users Manual* would permit the production of student flow maps (similar to those in the *Atlas*) that would provide the aforementioned types of information. The policy research project participants felt, however, that further map production could best be done by the staffs of the Coordinating Board or other state agencies on the basis of their perceived post-secondary education planning needs in Texas and the availability of usable data. Thus the *Atlas* and *Manual* not only provide an efficient procedure for displaying collected, but too often neglected, student enrollment data, but also should prove to be an incentive for improving planning and data collection policies among education decisionmakers in Texas.

STATEWIDE REGRESSION ANALYSIS

The regression analysis component of the project sought to explain the variations in the enrollment of Texas residents in higher education institutions across the state, county by county, and to provide a basis for predicting changes in these county enrollments by monitoring selected independent variables. Student demand analyses that include the entire post-secondary education sector are needed as well; regrettably, however, the appropriate student data are currently unavailable from the non-collegiate sector.

The phrase "regression analysis," when used in a statistical sense, refers to the methods by which estimates of one variable (called the *dependent* variable) are made from information about the values of one or more other variables (called the *independent* variables), and to the measurement of errors associated with such estimation. The phrase "correlation analysis" refers to methods for measuring the strength, or degree, of the association (or, correlation) among these variables; in this study, such methods are also subsumed under "regression analysis."*

Two dependent variables were considered in the regression analysis in this study. The first (D1) was the number of Texas residents attending an institution of higher education in Texas in the fall of 1970, by county of student residence. This information was provided by the staff of the Coordinating Board, Texas College and University System on the basis of its Educational Data Center reporting form. Included were student enrollments in any course at least one term in length in an undergraduate, graduate, or professional program. Data on the Texas State Technical Institute and private colleges and universities were only partially available.

The second dependent variable (D2) examined in the project was the "college-going rate," by county of student residence. This refers to a county's extent of participation in Texas higher education relative to its total college-age population. It is calculated, for each county in the state, by dividing the number of county residents attending Texas higher education institutions (D1) by the county's population in 1970 between the ages of 18 and 24. This age group was selected primarily because it was used by the Coordinating Board staff in 1968 in calculating "college-going rates" of Texas counties, even though most states only include 18 to 21-year-olds in the college-age category (Coordinating Board, 1968b). This expanded grouping is also more likely to include potential graduate and professional students, as well as older-than-average students in the undergraduate programs.

Characteristics of the (Texas) counties of student origin were used as the independent variables, due to the lack of historical information available on individual students or groups of students enrolled in Texas colleges and universities. These county-based data were obtained primarily from Bureau of the Census (1973: Chapters B and C) information and *Texas Public School Finance: A Majority of Exceptions* (Texas Research League 1972). Information on individual institutions was obtained from the Coordinating Board staff and, in the case of some private colleges and universities, from the institutions themselves.

It was hoped that variations in each of the two dependent variables could be largely explained by an appropriate linear combination of independent variables. The 19 independent variables included in this analysis were selected on the basis of anticipated relationships with the dependent variables and the availability of data in a usable form. The selected variables, each of which had a value for each Texas county, were:

- number of junior colleges within a 50-mile commuting radius of the county;*
- number of senior colleges within a 50-mile commuting radius of the county;
- distance from the county to the nearest public senior college;
- distance from the county to the nearest public junior college;
- distance from the county to the nearest private junior or senior college;
- percentage of the county population that is between the ages of 18 and 24;

*For a further discussion of regression analysis, see Hubert M. Blalock, Jr., *Social Statistics* (New York: McGraw Hill Book Company, 1972) or Morris Hamburg, *Statistical Analysis for Decision Making* (New York: Harcourt, Brace and World, Inc., 1970).

*Since a county occupies area and measurement from all parts of the area is impossible, the population center (or, centroid) of the county, as determined by the U.S. Bureau of the Census, was used as the point from which to measure distance. Since Texas counties are generally both small in size and regularly shaped, this was regarded as a reasonable assumption.

- percentage of the county population that is between the ages of 25 and 34;
- percentage of the county population that is black;
- percentage of the county population that has a Spanish surname;
- percentage of the county population that is urban;
- percentage of the county population with an annual income below the 1969 Social Security Administration poverty level (see Appendix A);
- percentage of the county civilian labor force that is unemployed;
- median income of county residents;
- mean income of county residents;
- per capita income of county residents;
- median education (i.e., school years completed) of males in the county;
- median education of females in the county;
- amount of total current operating costs per average daily attender in the public schools (grades K-12) in the county; and
- total county population.

Among the county-based independent variable candidates considered and then rejected were: county population change between 1960 and 1970; county fertility rate; number of county residents enrolled in grades 9-12; percentage of high school graduates among county residents 25 and over; median earnings of county residents in selected occupations; and number of county residents living in military base housing.

For consistency, 1970 dependent variable data were used with the independent variable data from the 1970 Census. To have used the fall 1973 data from the Coordinating Board's Uniform Reporting System (URS) would also have been impossible, since the URS responses were incomplete when the regression analysis was initiated.

The use of these data and variables suggest the need for care in analyzing the results. For instance, adult and continuing education enrollees were not distinguishable from students in other categories; part-time students were grouped with full-time; enrollments in technical programs and academic programs in the two-year institutions could not be separated; and the stated county of residence (i.e., origin) of a student could differ from the county of residence prior to attendance at the institution. Availability of data and the desire for consistency necessitated their use, however. Suggestions for improving the analysis are discussed below.

The computer program used for the regression analysis was selected from the Statistical Package for the Social Sciences (SPSS) (Nie, Bent, and Hull 1970).

In analyzing the relationships among the county-based independent and dependent variables listed above, correlations between each independent variable and each dependent variable were first examined. Using the characterization that any two variables having a correlation coefficient between -.20 and +.20 are "not significantly correlated," Table III-1 summarizes these results. Table III-2 contains a complete listing of correlation coefficients between each independent variable and each dependent variable.

The independent variable most positively correlated with the first dependent variable (D1) was "total county population," having a correlation coefficient of 0.994. Also exhibiting significant positive correlation with variable D1 were "mean income of county residents" (0.403) and "amount of total current operating costs per average daily attender in the public schools (grades K-12) in the county" (0.453). The only independent variable having a significant negative correlation with D1 was "percentage of the county population with an annual income below the 1969 Social Security Administration poverty level" (-0.217).

The second dependent variable (D2), on the other hand, exhibited significant negative correlations with seven independent variables and significant positive correlations with only three (as compared with one and nine, respectively, in the case of D1). The greatest negative correlation was between D2 and "percentage of the county population that is between the ages of 18 and 24" (-0.460), with the next greatest being "percentage of the county civilian labor force that is unemployed" (-0.393). Such correlations were not surprising. For instance, one might expect that a larger total county population between the ages of 18 and 24 would be associated with a lesser "county participation rate"—and, indeed, this was the case.

It is interesting to note (Tables III-1 and III-2) which independent variables were significantly correlated with *both* of the two dependent variables. Only "per capita income of county residents" and "median education of males in the county" were (significantly) positively correlated with both D1 and D2, while only "percentage of the county population with an annual income below the 1969 Social Security Administration poverty level" was (significantly) negatively correlated with both D1 and D2. These correlation results would indicate that these three independent variables are important ones to include in any analysis of the variation in enrollments of Texas higher education institutions.

The independent variables significantly correlated with *neither* of the dependent variables were "number of junior colleges within a 50-mile commuting radius of the county," "distance from the county to the nearest public senior college," "distance from the county to the nearest public junior college," and "distance from the county to the nearest private junior or senior college." It appears, therefore, that factors other than distance to higher education institutions influence student attendance patterns, by county. However, the difference between the

TABLE III-1

CORRELATIONS BETWEEN INDEPENDENT AND DEPENDENT VARIABLES IN STATEWIDE REGRESSION ANALYSIS

Dependent Variables	Independent Variables		
	Positively Correlated	Negatively Correlated	Not Significantly Correlated
Number of students from the county attending any college or university in Texas (D1)	*Number of Texas senior colleges within 50 miles *% of county 25-34 *% of county urban *County median income *County mean income *County per capita income *County median education: male *County school operating costs *Total county population	*% of county with income below poverty level	*Number of Texas junior colleges within 50 miles *Distance to nearest Texas public senior college *Distance to nearest Texas public junior college *Distance to nearest Texas private college *% of county 18-24 *%of county black *% of county with Spanish surname *County median education: female *% unemployed in county
County participation rate (D2)	*County per capita income *County median education: male *County median education: female	*Number of Texas senior colleges within 50 miles *% of county 18-24 *% of county black *% of county urban *% of county with income below poverty level *% of county with Spanish surname *% unemployed in county	*Number of Texas junior colleges within 50 miles *Distance to nearest Texas public senior college *Distance to nearest Texas public junior college *Distance to nearest Texas private college *% of county 25-34 *County median income *County mean income *County school operating costs *Total county population

TABLE III-2

CORRELATION COEFFICIENTS BETWEEN INDEPENDENT AND DEPENDENT VARIABLES IN STATEWIDE REGRESSION ANALYSIS

	Dependent Variables	
Independent Variables	D1	D2
–Number of Texas junior colleges within 50 miles (VAR001)	0.198	-0.169
–Number of Texas senior colleges within 50 miles (VAR002)	0.362	-0.240
–Distance to nearest Texas public senior college (VAR003)	-0.167	0.177
–Distance to nearest Texas public junior college (VAR004)	-0.057	0.096
–Distance to nearest Texas private college (VAR005)	-0.073	0.120
–Percent of county 18-24 (VAR006)	0.177	-0.460
–Percent of county 25-34 (VAR007)	0.386	-0.181
–Percent of county black (VAR008)	0.090	-0.308
–Percent of county urban (VAR009)	0.356	-0.224
–County median income (VAR011)	0.375	0.125
–County mean income (VAR012)	0.403	0.123
–County per capita income (VAR013)	0.336	0.321
–Percent of county with income below poverty level (VAR014)	-0.217	-0.241
–Percent of county with Spanish surname (VAR015)	-0.014	-0.214
–County median education: male (VAR16)	0.260	0.236
–County median education: female (VAR017)	0.178	0.25[illegible]
–Percent unemployed in county (VAR018)	0.035	-0.393
–County school operating costs (VAR019)	0.453	-0.046
–Total county population (VAR020)	0.994	-0.081

correlations of the density of nearby junior colleges with D2 and of the density of nearby senior colleges with D2 indicates that senior college enrollment in Texas may be less sensitive to density (i.e., nearness) considerations than is junior college enrollment.

A major purpose of the regression analysis was to examine the feasibility of using these 19 county-based independent variables to predict variations in higher education participation, by county and by institution. For each of the two dependent variables (D1 and D2), a multiple linear regression equation relating it to the independent variables was therefore derived and analyzed using the SPSS regression program. Tables III-3 and III-4 contain listings of coefficients derived for these two equations, as well as values of various statistical measures.

In the case of the regression equation involving D1, the value of the multiple correlation coefficient is greater than 0.995. Hence these independent variables (under the linearity assumption) account for, or explain, more than 99 percent of the variation in D1, the total number of students attending college from a given county. This result is largely due to the very high correlation (0.994) between D1 and "total county population" (see Tables III-1 and III-2).

In the second regression equation, the value of the multiple correlation coefficient is significantly less (0.69). This means that the linear combination of these independent variables accounts for only about one-half of the variance in D2. In other words, about one-half of the variance must be explained by other factors.

Thus it would appear that the 19 county characteristics considered as independent variables in this regression analysis are, by themselves, insufficient to accurately predict how many students from a Texas county will attend a Texas college or university (i.e., to predict D2); other variables must also be included in the analysis. The LBJ School Policy Research Project participants believe that these other factors are largely student-specific information on the background and current status of individuals actually attending Texas higher education institutions.

The Uniform Reporting System (URS) presently in use by the Coordinating Board staff *is* now able to supply some of this student-specific data to complement the county data. For instance, a student's sex, ethnic background, and undergraduate/graduate status, as well as county of residence (according to the location of the high school attended) can be easily obtained from the URS. Other information can also be extracted from the URS through cross-referencing, although this is more difficult. (This difficulty relates to the aforementioned lack of separation of types of students, programs, etc.) The Uniform Reporting System is able, for instance, to provide the number of hours for which a student is enrolled, i.e., whether he/she is a part-time or full-time student; and the courses taken by the student, i.e., whether the student is enrolled in vocational programs or academic programs.

Conclusions and Recommendations

The LBJ School Policy Research Project participants believe that multiple regression (and correlation) analysis techniques can be useful in explaining and predicting variations in county enrollment and participation patterns in post-secondary education across the state, provided users are aware of underlying assumptions and predictive limitations.

When the regression analysis in this project was begun, the decision was made to use county characteristics as the independent variables. These data were available and were regarded as appropriate, and project participants had no advance knowledge about the strength of the correlations and the amount of dependent variable variance explained by a linear combination of these independent variables. The results of this regression analysis were helpful in illustrating which independent variables were highly correlated with each of D1 and D2, and the explanatory capability of these county-based independent variables. Moreover, the emphasis on county characteristics in this analysis was entirely appropriate. Nevertheless, it is clear that additional variables need to be included in the analysis of county participation rates. In particular, background and student-specific information on individuals attending Texas post-secondary education institutions is needed. Some of this information in the higher education sector is now being provided by the Coordinating Board's Uniform Reporting System; other information is still not being generated.

Some suggestions that flow from this regression analysis are:

1. The Uniform Reporting System (URS) should be regarded as the primary instrument for gathering the student information needed in further regression analyses of this type. This would necessitate changes in the types of *information* gathered through the URS, as well as an expansion in the types of *institutions* completing and submitting these forms.

2. The Uniform Reporting System (URS) should be expanded to include additional student background information that preliminary analyses indicate would be useful. Such information might include:

- level of education of each parent;
- type of occupation of each parent;
- income of parents; and
- zip code number of parents' residence.

Knowledge of parental income levels, while difficult to determine directly, might be obtainable indirectly from other types of background information.

TABLE III-3

MULTIPLE REGRESSION

Dependent Variable: D1 (Number of Students)

INDEPENDENT VARIABLE*	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
VAR020	.99446	.98894	.98894	.99446	.03324	.98494
VAR016	.99476	.98954	.00060	.26023	112.33796	.02995
VAR006	.99490	.98983	.00029	.17723	23.36387	.01823
VAR004	.99499	.99000	.00017	-.05714	-2.46548	-.01531
VAR015	.99504	.99011	.00011	-.01428	4.56944	.01955
VAR019	.99508	.99018	.00007	.45256	-.02011	-.00888
VAR013	.99511	.99023	.00006	.33646	.35960	.02982
VAR002	.99513	.99028	.00005	.36166	-20.82976	-.01041
VAR005	.99516	.99033	.00006	-.07299	-.93719	-.00911
VAR009	.99517	.99037	.00004	.35610	1.91140	.01099
VAR018	.99519	.99040	.00003	.03497	-25.78941	-.00728
VAR00[illegible]	.99520	.99043	.00002	.38571	-13.60054	-.00484
VAR014	.99521	.99044	.00001	-.21715	3.90706	.00772
VAR017	.99521	.99045	.00001	.17801	-32.68362	-.00840
VAR008	.99521	.99045	.00000	.08974	1.81541	.00357
VAR012	.99521	.99045	.00000	.40279	-.02540	-.00684
VAR003	.99522	.99045	.00000	-.16659	-.26687	-.00155
(CONSTANT)					-1465.28175	

FINAL ANALYSIS OF VARIANCE

Due to	DF	Sum of Squares	Mean Square	F
Regression	17	6967008693.08200	409824040.76953	1428.23060
Residual	234	67145197.24732	286945.28738	

Standard Deviation of Residuals 535.67274

*Variable names are given in TABLE III-2.

TABLE III-4

MULTIPLE REGRESSION

Dependent Variable: D2 (Participation Role)

INDEPENDENT VARIABLE*	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
VAR006	.46023	.21181	.21181	-.46023	-.57694	-.29848
VAR016	.57285	.32816	.11635	.23567	1.71572	.30328
VAR008	.60965	.37168	.04352	-.30810	-.17205	-.22460
VAR007	.64507	.41612	.04444	-.18062	-1.05066	-.24815
VAR018	.65958	.43505	.01893	-.39260	-1.02914	-.19256
VAR002	.66572	.44318	.00813	-.23966	-.33491	-.11096
VAR011	.66870	.44716	.00398	.12546	.00194	.35367
VAR014	.67401	.45429	.00713	-.24145	.27252	.35699
VAR013	.67608	.45709	.00280	.32108	.00756	.41597
VAR012	.68389	.46771	.01062	.12273	-.00197	-.35201
VAR005	.68512	.46939	.00168	.11989	.01638	.10563
VAR004	.68749	.47265	.00326	.09641	-.01767	-.07275
VAR001	.68759	.47278	.00013	-.16886	.08937	.02063
VAR015	.68768	.47291	.00012	-.21397	-.01377	-.03906
VAR017	.68781	.47308	.00017	.25869	-.23174	-.03949
VAR020	.68785	.47314	.00006	-.08066	.00000	.00942
(CONSTANT)					12.31644	

FINAL ANALYSIS OF VARIANCE

Due to	DF	Sum of Squares	Mean Square	F
Regression	16	7571.37176	47[illegible]	13.18978
Residual	235	8431.11394	35.8[illegible]	

Standard Deviation of Residuals 5.98975

*Variable names are given in TABLE III-2.

3. The feasibility of generating or collecting student-specific information should also be seriously considered by the Coordinating Board staff. For instance, it might be helpful to obtain Scholastic Aptitude Test scores of high school students (possibly obtained through the Texas Education Agency or through the institutions themselves), as well as a statement of post-secondary education intentions by each high school student who is approaching graduation. This latter information might be obtained in a high school interest survey that would record the student's social security number (for cross-referencing survey results with the URS data); the student's intentions with regard to attendance at a four-year college, two-year college, public technical institute, or proprietary school, as well as specific school preferences; and the student's desired area of concentration. Such items as these would seem to be relevant in predicting post-secondary education participation in both academic and vocational sectors.

4. If data on Texas counties continue to be used in such predictions—and we believe they should be—they should in many cases be collected at the smallest possible geographic level (e.g., urban area tracts or ZIP code areas). Moreover, it is important that county data, if they are to play a major role in future analyses of this sort, be capable of being frequently updated. Such surrogate indicators as new housing starts and new automobile registrations may also have to be included.

5. Alternative approaches to expanding institutional involvement in the Uniform Reporting System should be assessed for their feasibility. Efforts might be made to include not only public and private senior and junior colleges/universities but also Texas Education Agency–certificated proprietary schools in the set of institutions filing completed URS forms with the Coordinating Board staff. This would be a first step toward the development of a state capability to analyze potential post-secondary education—not just higher education—student participation.

STUDENT ALLOCATION MODEL

While the regression model is useful in assessing the statistical significance of major determinants of county enrollments and participation rates, its predictive capability for allocation purposes is somewhat limited by the nonfulfillment of certain underlying conditions. A visual inspection suggests a non-linear relationship between the dependent variable and the independent variables. In addition, a county's flow of students is not tied to a single college or university. Perhaps most important of all, to design a multiple regression analysis that is operationally effective for student allocation purposes would require increased regional homogeniety and product specificity; this would render the analysis almost useless for other regions and other points in time.*

As part of the demand study a methodology for assessing student demand at various institutions was investigated. This technique is based on a spatial allocation process which assigns students by county of origin to institutions of higher education. The process is structured to account for variations in the character of destination institutions by subdividing institutions into categories: Major Research Institutions, M.A. and B.A.-Granting Institutions, and Community and Junior Colleges. These subdivisions are further refined by separating the private and public educational systems.

This allocation process recognizes the homogenizing features within these broad groupings by assessing the past "drawing power" of the individual institution relative to the level within which the institution is located. Although this is basically historical in nature, it is hoped that the present impact of the multitude of forces that define the "attractiveness" of a given institution can be represented through the use of recently observed behavior (i.e., 1970 data).

The potential supply of students to institutions of higher education is defined in two stages. The first is the number of college-age students available in each county now or at some future date. This information has been supplied to the Coordinating Board by the Population Research Center (Poston *et al.* 1973) through the use of the cohort survival-migration technique. Once the primary population "at risk" (i.e., college-age population) is determined, the second stage occurs. This stage is the determination of college-going rates by type or group of institution attended. When this is multiplied by the college-age population, a potential supply of students to institutions is determined. These elements are then entered into an allocation model in order to determine the relative demand of student spaces at given institutions.

The model used in this study is a modification of one formulated originally by David L. Huff to predict "consumer spatial behavior" (Huff and Blue 1966). An important attribute of this work is that "consumer spatial behavior" is shown to be explainable by utility theory (Luce 1959). The Huff model has shown an adaptability to a wide variety of multiple origin/multiple destination problems. For instance, Huff (1973) has used it to describe a national system of planning regions based on urban

*In addition, the error terms generated by the regression equation are not independent, and the regression residuals do not display a normal distribution. See N.R. Draper and H. Smith, *Applied Regression Analysis* (New York: John Wiley and Sons, Inc., 1966), p. 86.

spheres of influence. David E. Ault and Thomas E. Johnson, Jr. (1973) have used the model to plan hospital service areas. George H. Haines, Jr., Leonard S. Simon, and Marcus Alexis (1972a, 1972b) have analyzed central city trade areas using this technique.

Appendix B contains a technical description of the allocation model used in this project.

For each Texas county the flow of students from that county was determined for Texas universities and colleges according to the aforementioned six institutional groupings (e.g., Public Universities and Colleges granting Bachelor and Master Degrees (N=17)). These flows determined the relative role that distance played in allocating students from a given county to alternate institutional destinations. Table III-5 provides an example of this procedure applied to one college and university group (consisting of 17 institutions) for one particular county. This procedure was repeated for each of the six college and university groups, for each of the 254 Texas counties.

In Table III-5, lambda represents the allocation factor and U is a statistic of goodness of fit. (See Appendix B for a further discussion of lambda.) If U is less than one it indicates that the fit is better than a trend projection of the same data. In all cases in which this model was applied to student flows, U was equal to or less than one.

The primary purpose of this phase of the research project was to calculate the probability distribution of student attendance for a given group of schools, for students from a specific county. When summed by county for a particular institution, the student drawing power of that school on that county is determined. With the help of the Educational Data Center of the Coordinating Board, this information was incorporated into a 1980 institutional enrollment projection procedure based on 1970 county-to-institution student flow information.

The elements of the projection methodology are fairly straightforward, once the probability distribution which matches student attendance from each county to each institution is determined. The projection elements are:

- the projected college-age population (18-24) in each Texas county in 1980 (Poston *et al* 1973);
- the 1980 college-going rate of each county projected from existing state trends allocated to the counties based upon their 1970 rates of higher education attendance (Educational Data Center staff interviews 1974);
- the share of student enrollment that each institutional group (two-year colleges, BA/MA institutions, research institutions) will draw in 1980 (Educational Data Center staff interviews 1974); and
- the probability distribution of students in a given county attending a given college or university, based upon the variant of the Huff model developed by the LBJ School to analyze student flow data.

An application of this projection procedure to one university (East Texas State University) is given in Table III-6. Table III-7 summarizes the 1980 enrollment projections for the six institutional groupings used in this analysis.

Uses of the Allocation Model

It is important to fully understand the limitations of this allocation model analysis and the resulting projections. First, the projections are based upon the reported fall head counts of Texas residents at Texas higher education institutions in 1970. Hence there is a built-in underestimation of approximately 14 percent resulting from missing data, inaccurately reported data, Texas residents attending education institutions outside the state, and non-Texas residents attending Texas institutions.

The interpretation of these results is also quite difficult due to the dynamic nature of the Texas "system" of higher education during the years immediately following the fall of 1970 head count. This projection procedure only estimates student demand for (and thus only allocates students to) Texas higher education institutions that existed in 1970. Student demand for newly established Texas institutions (and programs) and the impact of this demand on potential enrollments of existing institutions are *not* taken into account; neither are changes in the higher education "systems" in neighboring states considered. It should therefore be clear that, if the methodology demonstrated here is to be successfully applied for enrollment projection purposes, education planners must use the most recent student flow information and the institutions existing in the projection base year, and assume that no new institutions will be created during the projection period.

The 1980 enrollment projection figures for North Texas State University, The University of Texas at Arlington, and Texas Women's University are likely to exceed actual enrollment due to the post-1970 development of The University of Texas at Dallas campus. Similarly, the enrollment projection for Southwest Texas State University does not take into account the impact of the new San Antonio campus of The University of Texas. On the other hand, the estimate for The University of Houston is likely low, since enrollment at its new Clear Lake City campus is not considered.

This model is also culturally blind; it may, for instance, slightly underestimate the drawing power of Pan American

TABLE III-5

LAMBDA	ERROR	U
2.5278640	.1545143	.4592779
3.4721360	.1695191	.4537386
1.9442719	.1499157	.4705184
1.5835921	.1502425	.4816801
2.1671843	.1510141	.4652806
1.8065045	.1497160	.4743879
1.7213595	.1497898	.4770241
1.8591270	.1497467	.4728521
1.7739820	.1497260	.4753728
1.8266045	.1497210	.4737928

Fibonacci Search Ended In 11 Steps

Lambda = 1.81 U = .474

LOCATION IDENTIF.	LOCATION SIZE	DISTANCE FROM COUNTY	PROBABILITY DISTRIBUTION	ACTUAL DISTR. OF STUDENTS	EXPECTED DISTR. OF STUDENTS
1- 1	3740	2.04	.11	13	20.51
2- 2	10210	6.93	.03	3	6.13
3- 3	3641	3.43	.04	3	7.76
4- 4	4939	6.61	.02	0	3.23
5- 5	4095	5.11	.02	0	4.26
6- 6	9769	5.69	.05	1	8.38
7- 7	9633	4.36	.07	69	13.33
8- 8	9200	6.15	.04	11	6.85
9- 9	2368	1.99	.07	38	13.52
10- 10	2905	3.47	.03	3	6.08
11- 11	7517	5.83	.03	0	6.15
12- 12	265	5.17	00	0	.27
13- 13	68	6.72	.00	0	.04
14- 14	4803	6.11	.02	0	3.61
15- 15	13574	4.14	.11	1	20.65
16- 16	9470	2.75	.16	2	30.22
17- 17	7554	2.23	.19	42	35 02
			1.00*	186*	186.000*

TABLE III-6

COORDINATING BOARD, TEXAS COLLEGE AND UNIVERSITY SYSTEM
EDUCATIONAL DATA CENTER
ENROLLMENT PROJECTIONS 1980
EAST TEXAS STATE UNIVERSITY

COUNTY NAME	1980 COUNTY COLLEGE GOING RATE	SHARE BY TYPE INST. FACTOR	PROBABILITY DISTRIBUTION	1980 COLLEGE AGE POPULATION	ENROLLMENT
CLAY	0.454	.240	.100	000,739	00,008
LIMESTONE	0.302	.240	.100	001,435	00,010
SABINE	0.280	.240	.110	000,705	00,005
COOKE	0.764	.240	.120	002,789	00,061
NAVARRO	0.480	.240	.120	002,693	00,037
SAN AUGUSTINE	0.299	.240	.120	000,786	00,006
GRAYSON	0.442	.240	.150	016,339	00,259
FREESTONE	0.377	.240	.160	000,771	00,011
NACOGDOCHES	0.180	.240	.170	007,441	00,054
HENDERSON	0.421	.240	.190	003,316	00,063
PANOLA	0.465	.240	.190	001,195	00,025
SHELBY	0.403	.240	.190	001,852	00,034
ROCKWALL	0.337	.240	.200	000,833	00,013
ANDERSON	0.490	.240	.220	002,479	00,064
KAUFMAN	0.270	.240	.220	003,622	00,051
RUSK	0.428	.240	.240	002,976	00,073
BOWIE	0.412	.240	.280	008,030	00,222
CHEROKEE	0.345	.240	.290	003,023	00,072
HARRISON	0.343	.240	.290	013,726	00,327
CASS	0.370	.240	.300	002,470	00,065
MARION	0.341	.240	.330	000,860	00,023
FANNIN	0.439	.240	.340	001,955	00,070
LAMAR	0.420	.240	.350	003,745	00,132
SMITH	0.488	.240	.350	011,162	00,457
RED RIVER	0.356	.240	.360	001,125	00,034
VAN ZANDT	0.404	.240	.390	002,277	00,086
GREGG	0.483	.240	.430	008,889	00,443
RAINS	0.322	.240	.460	000,408	00,014
MORRIS	0.406	.240	.490	001,290	00,061
DELTA	0.491	.240	.500	000,275	00,016
CAMP	0.427	.240	.580	000,778	00,046
FRANKLIN	0.330	.240	.610	000,506	00,024
UPSHUR	0.324	.240	.730	002,363	00,134
TITUS	0.364	.240	.780	001,559	00,106
HUNT	0.288	.240	.810	007,755	00,434
WOOD	0.360	.240	.830	001,809	00,129
HOPKINS	0.310	.240	.930	002,262	00,156

Total Projected 1980 Enrollment for East Texas State University 007133

TABLE III-7

1980 ENROLLMENT PROJECTIONS*

Public Sr.		
Research & Ph.D.	143,780	
4 yr. & 1st level grad.	119,534	
Subtotal	263,314	
Public Comm.	218,553	
Subtotal		481,867
Private Sr.		
Research & Ph.D.	31,653	
4 yrs. & 1st level grad.	36,147	
Subtotal	67,800	
Private Jr.	1,526	
Subtotal		69,326
TOTAL		551,193

*Based upon the Huff allocation model variant developed by the LBJ School in this project.

University as a center of Mexican-American education in the South Texas area. Student pricing policies and other institutional factors are also ignored, for good reason, in this analysis.

In summary, the methodology is regarded as valid by the project participants. Up-to-date information on student flows and institutional existence and capacity must be used, however. When combined with the other project analyses of student flow data at the regional level, this Huff model variant could be of considerable value in effectively incorporating demand/supply factors and data into post-secondary education planning in Texas. Such regional applications are discussed in Chapter IV.

CHAPTER IV

ANALYTIC TECHNIQUES FOR PLANNING: A REGIONAL AND INSTITUTIONAL APPROACH

This report has examined a variety of analytic techniques for incorporating supply/demand information into post-secondary education planning in Texas. Included have been the *Texas Atlas of Higher Education*, the student flow version of the MAPPER programs (as documented in the *MAPPER Users Manual*), the statewide regression analysis of county participation rates in higher education, and the LBJ School student flow variant of the Huff allocation (probability) model. These provide improved information display and analysis techniques to facilitate state education planning. At the other end of the spectrum, institutional planning procedures, with an emphasis on program development, are examined in Chapter V through survey responses of post-secondary education institutions in one sub-state region and in-depth studies of a few selected schools. These analyses focus on present practices and clearly indicate the need for the development of regional and institutional planning techniques that complement the statewide efforts.

An important initial task in relating state planning to institutional planning is the application of statewide techniques in different regions of the state, thereby providing the student flow information needed by education institutions and planners to effectively coordinate their activities.

One such tool, the Institutional Service Area (ISA) analysis, has been developed in this project to demonstrate the post-secondary education dynamics of any Texas region (i.e., of any set of contiguous Texas counties). This analytic technique is a straightforward application to a region of the *Atlas* and *MAPPER Users Manual* information display tools discussed in Chapter III. Both institution-based and county-based matrices of county-to-institution student flows can be provided for all counties and higher education institutions in the region, for a five-year period.

To illustrate the Institutional Service Area analysis, project participants decided to focus on a single sub-state region. The Austin - San Antonio area was selected as the region of study. Included were the 21 counties constituting the Capitol Area State Planning Region (CASPR) and the Alamo Area State Planning Region (AASPR).* County characteristics of the region are summarized in Table IV-1.

The selection of the Austin - San Antonio region in preference to other regions of the state was based on several factors. These included:

- regional population growth;
- shifting economic patterns;
- the presence of metropolitan centers; and
- representative numbers of ethnic minorities.

In addition to these general factors, the region was evaluated in terms of institutional mix, physical accessibility, information availability, and the presence of both urban and rural characteristics. While recognizing the diversity of sub-state regions, the project participants felt that the Austin - San Antonio area was as heterogeneous with respect to population, economic activity, urban/rural mix, and institutions as most other areas in Texas.

With respect to the institution-based analysis, the 14 CASPR-AASPR collegiate institutions in existence during the period 1968-1972 are considered. Tables IV-2 through IV-15 provide the basis for the discussion.

In each of these 14 tables, the institution's name is in the upper left corner. Counties are listed on the far left side. Below the counties appear the titles "Region," "State," and "Total." For each of the five years, the first number associated with "Region" represents the total number of students attending the institution who originated from the selected region, i.e., from the counties listed on the table. The first "State" figure denotes, for each year, the total number of students attending the institution who come from Texas counties outside the selected region. These numbers have also been converted into percentages to give region and state breakdowns indicating the *scope* of the institution, i.e., whether it is predominantly state or regional in terms of its student service area.

The three columns under each of the years 1968 through 1972 provide more detailed student flow information for each of the selected counties. In each of these tables, these columns indicate, respectively:

- the number of students in that institution who originate from the designated county;
- the percentage of the *regional* portion of students in

*Karnes County has, at different times, been a member of AASPR and the Coastal Bend State Planning Region and is not included in this example.

TABLE IV-1

CASPR AND AASPR:

COUNTY CHARACTERISTICS

Counties	Land Area (sq. mi.) (1)	Total Population (1)	Percent Urban (1)	Percent Under 18 (1)	Percent Unemployed (1)	Percent Minority (1)	No. in public high school (2)	No. in college (2)
Atacosa	1,206	18,696	45.0	38.3	3.5	1.1	1,296	127
Bandera	763	4,747	0.0	28.4	3.5	0.4	407	26
Bastrop (c)	890	17,297	57.3	32.6	2.4	26.5	1,217	65
Bexar	1,246	830,460	94.9	37.8	4.2	7.9	57,229	22,963
Blanco (c)	719	3,567	0.0	28.1	1.4	3.2	241	6
Burnet (c)	996	11,420	25.1	27.5	1.5	2.0	671	36
Caldwell (c)	544	21,178	52.9	37.5	2.9	22.0	1,785	205
Comal	567	24,165	73.9	33.3	2.6	2.1	1,728	299
Fayette (c)	934	17,650	17.5	25.9	1.7	12.0	1,133	128
Frio	1,116	11,159	49.7	42.7	4.8	0.8	728	47
Gillespie	1,055	10,583	50.5	30.4	5.3	0.8	719	11
Guadalupe	714	33,554	59.6	34.6	3.7	9.6	2,020	1,053
Hays (c)	650	27,142	68.2	29.4	2.1	4.4	1,486	6,068
Karnes*	758	13,462	52.6	37.9	3.4	3.4	1,009	136
Kendall	670	6,964	0.0	30.6	2.2	0.6	526	24
Kerr	1,101	19,454	65.1	26.6	3.3	4.2	1,031	242
Lee (c)	637	8,048	34.6	29.8	1.6	22.2	646	36
Llano (c)	941	6,979	37.4	22.3	1.2	0.5	322	9
Medina	1,352	20,249	43.4	38.6	3.7	1.1	1,539	129
Travis (c)	1,012	295,516	89.5	32.0	1.8	11.9	16,931	32,197
Williamson (c)	1,164	37,305	50.5	33.1	1.9	12.6	2,367	921
Wilson	802	13,041	28.9	37.2	3.0	1.5	957	29

(c) Denotes CASPR county

*Karnes County has, at different times, been included in the AASPR and in the Coastal Bend State Planning Region.

Sources:

(1) Bureau of the Census, 1973.

(2) CASPR and AASPR

this institution coming from the designated county; and

- the percentage of *all* Texas-resident students attending the institution who originate from the designated county.

As an example, consider Table IV-13. Examining the entries opposite "Region" for the years 1968 through 1972, it is clear that St. Phillip's College is becoming even more regional in its scope. Whereas 95.8 percent of the college's (Texas) students came from the selected region in 1968, this figure had risen to 99.4 percent by 1972. Focusing on the counties, it is further shown that, in 1972, 96.8 percent of these regional students came from Bexar County. Thus St. Phillip's College is not only regional in its orientation but, in fact, very local.

Other institutions exhibit opposite trends. Southwest Texas State University, for example, is experiencing an expanding service area (see Table IV-2). The "State" proportion of its Texas-resident enrollment has been increasing at the expense of its regional enrollment.

This institution-based analysis, as the *Atlas*, provides a description of each institution's service area. By examining the extent of the goegraphic area from which each institution draws its students, post-secondary education planners can develop improved policies concerning facility construction (and modification) and program development. For example, a college or university serving an increasing percentage of students from counties outside the immediate vicinity would need to consider the capacity of its existing dormitories. On the other hand, an institution such as St. Phillip's College that is serving an increasing number of regional and local students may need to reassess its facilities in light of its shrinking service area. Such a reassessment might result in the construction of parking lots for commuter students rather than dormitories, for example.

Program development is similarly affected by a school's service area. Programs should be designed to meet the education needs and the employment opportunities and demands of the residents of the service area. Identification of an institution's service area is a critical first step in formulating institutional training programs.

Student flow trends noted through institution-based analysis provide useful data in projecting future enrollments for colleges or universities. The analysis also may aid the Coordinating Board staff in re-examining the scope of institutions. Further development and application of this analytical tool could provide the Coordinating Board staff with another means of assessing the impact of new programs on the distribution of students among institutions.

Tables IV-16 through IV-36 illustrate the county-based analysis for the selected region. In each of these 21 tables, the county name is given in the upper left corner, with the collegiate institutions in the region listed on the far left side. At the conclusion of this list of institutions appear the titles "Region," "State," and "Total." The number of students from the county attending colleges or universities within the region is located in the "Region" category; the number of students from the county attending Texas higher education institutions outside the region is located in the "State" category; and the total number of students from the county attending Texas colleges and universities is located in the "Total" category.

Detailed enrollment data are provided in three columns for each institution, for each year from 1968 through 1972. The number of students from the county enrolled in each institution is given in the first column, the percent of county-resident students educated in the region attending each institution in the second column, and the percent of county-resident students educated in the state attending each institution in the third column.

The proportion of students attending institutions in the region relative to students attending schools outside the region remained stable over this five-year period for most of the CASPR and AASPR counties. A few counties, however, exhibited discernible shifts. For example, the percent of Wilson County (Table IV-36) students attending colleges and universities in the region increased steadily from 52.0 percent in 1968 to 66.3 percent in 1972. On the other hand, Travis County (Table IV-34) experienced a shift of its college-age population to schools outside the region over the same period. In 1968 only 14.0 percent of Travis County students were enrolled in out-of-region institutions; by 1972 this figure had jumped to 25.7 percent.

County-based analysis can assist an institution in better projecting its future student body size and composition (with respect to residence). Examining trends in counties that contribute heavily to its student population can help the institution detect shifts in student preference and can indicate whether the shift is an institutional or regional phenomenon.

County-based analysis also may serve to identify inequitably apportioned educational resources. For instance, the observance of counties with excessively high proportions of their respective college-age population attending out-of-region schools may indicate inadequate regional facilities or a lack of programs designed to meet regional needs. Such identification of potentially "deficient" counties and/or institutions might enable the Coordinating Board staff to suggest improved alternatives.

The Institutional Service Area (ISA) analysis can be applied easily to any region of the state consisting of contiguous counties. This potential application of ISA analysis offers institutional planners an improved analytical technique for self-improvement, while increasing the state planners' capability to facilitate comprehensive post-secondary education institution coordination and development.

TABLE IV-2

SOUTHWEST TEXAS	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
ATASCOSA	55	1.2	.7	54	1.1	.6	76	1.4	.8	88	1.4	.7	75	1.3	.6
BANDERA	25	.5	.3	38	.6	.3	23	.4	.2	12	.2	.1	16	.3	.1
BASTROP	55	1.2	.7	54	1.1	.6	76	1.4	.8	88	1.4	.7	75	1.3	.6
BEXAR	1515	31.9	16.5	1755	34.2	19.1	1916	35.7	19.9	2274	36.7	20.6	2379	39.7	20.5
BLANCO	43	.9	.5	45	.9	.5	43	.8	.4	43	.7	.4	43	.7	.4
BURNET	49	1.0	.6	51	1.0	.6	54	1.0	.6	49	.8	.4	40	.7	.3
CALDWELL	173	3.6	2.1	282	3.9	2.2	181	3.4	1.9	186	3.2	1.7	185	3.1	1.6
COMAL	271	5.7	3.3	276	5.4	3.0	276	5.1	2.9	324	5.5	2.9	304	5.1	2.6
FAYETTE	61	1.3	.7	62	1.2	.7	57	1.1	.6	52	.9	.5	46	.8	.4
FRIO	18	.4	.2	21	.4	.2	36	.7	.4	33	.6	.3	33	.6	.3
GILLESPIE	65	1.3	.8	68	1.3	.7	69	1.3	.7	85	1.4	.8	89	1.5	.8
GUADALUPE	229	4.8	2.8	262	5.1	2.9	263	4.9	2.7	291	5.0	2.6	298	4.8	2.5
HAYS	671	14.1	8.2	642	12.5	7.0	628	11.7	6.5	648	11.0	5.9	622	10.4	5.4
KENDALL	31	.7	.4	46	.9	.5	44	.8	.5	36	.6	.3	43	.7	.4
KERR	52	1.1	.6	49	1.0	.5	60	1.1	.6	49	.8	.4	41	.7	.4
LEE	9	.2	.1	10	.2	.1	13	.2	.1	22	.4	.2	20	.3	.2
LLANO	31	.7	.4	24	.5	.3	24	.4	.2	23	.4	.2	25	.4	.2
MEDINA	0	0.0	0.0	0	0.0	0.0	95	1.8	1.0	0	0.0	0.0	119	2.0	1.0
TRAVIS	1102	24.9	14.4	1249	24.4	13.6	1210	22.7	12.6	1374	23.4	12.4	1363	22.7	11.8
WILLIAMSON	156	3.3	1.9	159	3.1	1.7	149	2.8	1.5	156	2.7	1.4	128	2.1	1.1
WILSON	55	1.2	.7	67	1.3	.7	59	1.1	.6	59	1.0	.5	62	1.0	.5
REGION	4744		57.8	5126		55.9	5368		55.7	5876		53.2	5998		51.8
STATE	3464		42.2	4039		44.1	4270		44.3	5179		46.8	5585		48.2
TOTAL	8208			9165			9638			11055			11583		

AN ASTERISK INDICATES THAT ENROLLMENT DATA WAS NOT AVAILABLE

(1)=ENROLLMENT FROM COUNTY IN INSTITUTION

(2)=PERCENT OF REGIONAL STUDENTS ATTENDING INSTITUTION ORIGINATING IN DESIGNATED COUNTY

(3)=PERCENT OF STUDENTS ATTENDING INSTITUTION ORIGINATING IN DESIGNATED COUNTY

TABLE IV-3

UT*AUSTIN	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
ATASCOSA	41	.4	.1	35	.3	.1	35	.3	.1	35	.3	.1	33	.3	.1
BANDERA	10	.1	.0	11	.1	.0	12	.1	.0	10	.1	.0	7	.1	.0
BASTROP	86	.8	.3	86	.8	.3	67	.6	.2	66	.6	.2	75	.7	.2
BEXAR	2361	22.3	8.3	2861	25.7	9.2	3241	28.3	9.6	3338	30.3	9.8	3368	31.3	9.8
BLANCO	16	.2	.1	17	.2	.1	10	.2	.1	12	.1	.0	9	.1	.0
BURNET	42	.4	.1	42	.4	.1	47	.4	.1	52	.5	.2	50	.5	.2
CALDWELL	73	.7	.3	70	.6	.2	56	.5	.2	44	.4	.1	44	.4	.1
COMAL	75	.7	.3	79	.7	.3	76	.7	.2	70	.6	.2	77	.7	.2
FAYETTE	76	.7	.3	70	.7	.2	70	.7	.2	60	.7	.2	01	.0	.2
FRIO	17	.2	.1	13	.1	.0	20	.2	.1	22	.2	.1	25	.2	.1
GILLESPIE	60	.6	.2	64	.6	.2	60	.6	.2	55	.5	.2	60	.6	.2
GUADALUPE	76	.7	.3	05	.0	.3	96	.0	.3	95	.9	.3	94	.9	.3
HAYS	00	.0	.3	96	.9	.3	99	.9	.3	100	.9	.3	100	.9	.3
KENDALL	23	.2	.1	26	.2	.1	27	.2	.1	25	.2	.1	26	.2	.1
KERR	57	.5	.2	67	.6	.0	71	.6	.2	71	.6	.2	70	.7	.2
LEE	17	.2	.1	17	.2	.1	22	.2	.1	14	.1	.0	13	.1	.0
LLANO	23	.2	.1	26	.2	.1	15	.1	.0	16	.1	.0	10	.1	.0
MEDINA	37	.3	.1	43	.4	.1	39	.3	.1	40	.4	.1	36	.3	.1
TRAVIS	7210	60.0	20.3	7106	64.6	23.0	7107	62.0	21.0	6610	60.1	19.4	6330	50.9	10.6
WILLIAMSON	196	1.0	.7	204	1.0	.7	256	2.2	.0	219	2.0	.6	200	1.9	.6
WILSON	15	.1	.1	22	.2	.1	24	.2	.1	27	.2	.1	15	.1	.0
REGION	10500		37.2	11120		35.7	11472		33.9	11001		32.3	10745		31.2
STATE	17074		60.0	20076		64.3	22359		66.1	23040		67.7	23720		60.0
TOTAL	20473			31200			33031			34041			34465		

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TABLE IV-4

HUSTON TILLOTSO	1968			1969			1970*			1971			1972		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
ATASCOSA	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0	0	0.0	0.0
BANDERA	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0	0	0.0	0.0
BASTROP	7	2.7	1.0	5	2.5	1.0				8	3.6	1.6	8	3.4	1.8
BEXAR	47	17.8	6.7	24	12.1	4.6				15	6.8	3.0	18	7.6	3.9
BLANCO	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0	0	0.0	0.0
BURNET	1	.4	.1	1	.5	.2				0	0.0	0.0	0	0.0	0.0
CALDWELL	0	0.0	0.0	2	1.0	.4				5	2.3	1.0	2	.8	.4
COMAL	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0	0	0.0	0.0
FAYETTE	1	.4	.1	2	1.0	.4				2	.9	.4	5	2.1	1.1
FRIO	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0	0	0.0	0.0
GILLESPIE	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0	0	0.0	0.0
GUADALUPE	0	0.0	0.0	0	0.0	0.0				1	.5	.2	3	1.3	.7
HAYS	1	.4	.1	0	0.0	0.0				0	0.0	0.0	1	.4	.2
KENDALL	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0	0	0.0	0.0
KERR	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0	0	0.0	0.0
LEE	6	2.3	.9	2	1.0	.4				6	2.7	1.2	2	.8	.4
LLANO	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0	0	0.0	0.0
MEDINA	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0	0	0.0	0.0
TRAVIS	196	74.2	27.0	157	79.3	30.8				182	82.0	36.3	198	83.2	43.3
WILLIAMSON	5	1.9	.7	5	2.5	1.0				3	1.4	.6	1	.4	.2
WILSON	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0	0	0.0	0.0
REGION	264		37.5	198		37.8				222		44.3	238		52.1
STATE	440		62.5	326		62.2				279		55.7	219		47.9
TOTAL	704			524						501			457		

AN ASTERISK INDICATES THAT ENROLLMENT DATA WAS NOT AVAILABLE

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[3]=PERCENT OF STUDENTS ATTENDING INSTITUTION ORIGINATING IN DESIGNATED COUNTY

TABLE IV-5

INCARNATE WORD	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
ATASCOSA	0	0.0	0.0	0	0.0	0.0	5	.5	.4	3	.3	.2	4	.4	.3
BANDERA	1	.1	.1	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
BASTROP	2	.2	.2	1	.1	.1	1	.1	.1	0	0.0	0.0	0	0.0	0.0
BEXAR	865	94.1	75.9	965	96.1	78.3	998	94.8	80.2	1068	95.2	80.9	1024	94.6	77.7
BLANCO	0	0.0	0.0	1	.1	.1	1	.1	.1	0	0.0	0.0	0	0.0	0.0
BURNET	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
CALDWELL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
COMAL	5	.5	.4	4	.4	.3	6	.6	.5	8	.7	.6	5	.5	.4
FAYETTE	2	.2	.2	1	.1	.1	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
FRIO	2	.2	.2	0	0.0	0.0	1	.1	.1	2	.2	.1	4	.4	.3
GILLESPIE	3	.3	.3	1	.1	.1	1	.1	.1	1	.1	.1	1	.1	.1
GUADALUPE	11	1.2	1.0	11	1.1	.9	9	.9	.7	6	.5	.4	6	.6	.5
HAYS	0	0.0	0.0	1	.1	.1	1	.1	.1	3	.3	.2	2	.2	.2
KENDALL	2	.2	.2	6	.6	.5	7	.7	.6	5	.4	.4	11	1.0	.8
KERR	7	.8	.6	0	0.0	0.0	3	.3	.2	8	.7	.6	6	.6	.5
LEE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
LLANO	1	.1	.1	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
MEDINA	6	.7	.5	4	.4	.3	5	.5	.4	5	.4	.4	5	.5	.4
TRAVIS	6	.7	.5	1	.1	.1	1	.1	.1	6	.5	.4	6	.6	.5
WILLIAMSON	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.1	.1
WILSON	6	.7	.5	7	.7	.6	13	1.2	1.1	7	.6	.5	8	.7	.6
REGION	919		88.7	985		81.4	1044		84.6	1134		84.9	1083		82.2
STATE	228		19.3	224		18.6	190		15.4	201		15.1	235		17.8
TOTAL	1139			1207			1234			1335			1318		

AN ASTERISK INDICATES THAT ENROLLMENT DATA WAS NOT AVAILABLE

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(3)=PERCENT OF STUDENTS ATTENDING INSTITUTION ORIGINATING IN DESIGNATED COUNTY

TABLE IV-6

OUR LADY OF LAK	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
ATASCOSA	19	1.6	1.3	16	1.3	1.1	20	1.3	1.2	15	.8	.8	19	1.0	.8
BANDERA	0	0.0	0.0	3	.2	.2	3	.2	.2	2	.1	.1	0	0.0	0.0
BASTROP	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
BEXAR	1128	93.5	77.8	1158	92.5	79.2	1441	92.9	83.1	1698	95.4	87.0	1868	95.3	82.8
BLANCO	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
BURNET	0	0.0	0.0	0	0.0	0.0	1	.1	.1	0	0.0	0.0	0	0.0	0.0
CALDWELL	1	.1	.1	1	.1	.1	5	.3	.3	4	.2	.2	2	.1	.1
COMAL	2	.2	.1	3	.2	.2	3	.2	.2	4	.2	.2	3	.2	.1
FAYETTE	0	0.0	0.0	2	.2	.1	2	.1	.1	1	.1	.1	1	.1	.0
FRIO	2	.2	.1	4	.3	.3	4	.3	.2	6	.3	.3	8	.4	.4
GILLESPIE	0	0.0	0.0	1	.1	.1	2	.1	.1	2	.1	.1	2	.1	.1
GUADALUPE	5	.4	.3	6	.5	.4	7	.5	.4	6	.3	.3	6	.3	.3
HAYS	9	.7	.6	5	.4	.3	10	.6	.6	7	.4	.4	1	.1	.0
KENDALL	10	.8	.7	6	.5	.4	4	.3	.2	3	.2	.2	5	.3	.2
KERR	0	0.0	0.0	1	.1	.1	1	.1	.1	2	.1	.1	4	.2	.2
LEE	0	0.0	0.0	2	.2	.1	1	.1	.1	0	0.0	0.0	0	0.0	0.0
LLANO	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
MEDINA	24	2.0	1.7	30	2.4	2.1	34	2.2	2.0	18	1.0	.9	17	.9	.8
TRAVIS	1	.1	.1	10	.8	.7	6	.4	.3	5	.3	.3	9	.5	.4
WILLIAMSON	1	.1	.1	1	.1	.1	0	0.0	0.0	1	.1	.1	6	.3	.3
WILSON	4	.3	.3	3	.2	.2	7	.5	.4	6	.3	.3	10	.5	.4
REGION	1286		83.2	1252		85.6	1551		89.4	1788		91.2	1961		86.9
STATE	248		16.8	211		14.4	186		10.6	172		8.8	296		13.1
TOTAL	1498			1463			1738			1952			2257		

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(3)=PERCENT OF STUDENTS ATTENDING INSTITUTION ORIGINATING IN DESIGNATED COUNTY

TABLE IV-7

ST. EDWARDS	1968*			1969*			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
ATASCOSA							0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
BANDERA							1	.4	.2	1	.2	.1	1	.2	.1
BASTROP							4	1.4	.8	5	.9	.6	3	.5	.3
BEXAR							37	13.3	7.1	37	6.9	4.3	37	6.3	4.1
BLANCO							0	0.0	0.0	0	0.0	0.0	1	.2	.1
BURNET							2	.7	.4	2	.4	.2	2	.3	.2
CALDWELL							1	.4	.2	2	.4	.2	2	.3	.2
COMAL							0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
FAYETTE							1	.4	.2	2	.4	.2	2	.3	.2
FRIO							0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
GILLESPIE							4	1.4	.8	6	1.1	.7	7	1.2	.8
GUADALUPE							0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
HAYS							3	1.1	.6	4	.7	.5	5	.9	.6
KENDALL							0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
KERR							3	1.1	.6	4	.7	.5	4	.7	.4
LEE							0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
LLANO							0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
MEDINA							0	0.0	0.0	0	0.0	0.0	1	.2	.1
TRAVIS							213	76.3	41.0	455	84.7	53.4	588	86.4	56.1
WILLIAMSON							10	3.6	1.9	18	3.4	2.1	13	2.2	1.4
WILSON							0	0.0	0.0	1	.2	.1	2	.3	.2
REGION							279		53.7	537		63.0	588		65.8
STATE							241		46.3	315		37.0	317		35.8
TOTAL							520			852			905		

AN ASTERISK INDICATES THAT ENROLLMENT DATA WAS NOT AVAILABLE

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TABLE IV-8

ST. MARY S	1968			1969			1970			1971			1972		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
ATASCOSA	5	.1	.1	9	.2	.2	9	.3	.3	6	.2	.2	13	.5	.4
BANDERA	6	.2	.2	1	.0	.0	0	0.0	0.0	1	.0	.0	2	.1	.1
BASTROP	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
BEXAR	3398	98.4	91.5	3598	98.3	93.1	3842	97.8	98.6	2989	97.9	91.4	2682	96.5	82.2
BLANCO	0	0.0	0.0	0	0.0	0.0	1	.3	.0	1	.0	.0	0	0.0	0.0
BURNET	4	.1	.1	2	.1	.1	1	.0	.0	4	.1	.1	3	.1	.1
CALDWELL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.0	.0
COMAL	2	.1	.1	4	.1	.1	9	.3	.3	11	.4	.3	12	.4	.4
FAYETTE	5	.1	.1	3	.1	.1	3	.1	.1	2	.1	.1	1	.0	.0
FRIO	5	.1	.1	3	.1	.1	6	.2	.2	2	.1	.1	8	.3	.2
GILLESPIE	2	.1	.1	5	.1	.1	1	.0	.0	1	.0	.0	2	.1	.1
GUADALUPE	6	.2	.2	7	.2	.2	10	.3	.3	6	.2	.2	9	.3	.3
HAYS	0	0.0	0.0	3	.1	.1	4	.1	.1	3	.1	.1	5	.2	.2
KENDALL	6	.2	.2	9	.2	.2	8	.3	.2	10	.3	.3	3	.1	.1
KERR	2	.1	.1	1	.0	.0	3	.1	.1	2	.1	.1	1	.0	.0
LEE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.0	.0
LLANO	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
MEDINA	1	.0	.0	2	.1	.1	2	.1	.1	0	0.0	0.0	1	.0	.0
TRAVIS	5	.1	.1	7	.2	.2	6	.2	.2	6	.2	.2	32	1.2	1.0
WILLIAMSON	0	0.0	0.0	1	.0	.0	0	0.0	0.0	1	.0	.0	1	.0	.0
WILSON	0	.2	.2	6	.2	.2	7	.2	.2	6	.2	.2	1	.0	.0
REGION	3455		93.1	3661		94.8	3112		92.6	2971		93.8	2778		85.1
STATE	258		6.9	202		5.2	247		7.4	211		6.6	486		14.9
TOTAL	3713			3863			3359			3182			3264		

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TABLE IV-9

SOUTHWESTERN UN	1968			1969			1970			1971			1972		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
ATASCOSA	1	.5	.1	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
BANDERA	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
BASTROP	3	1.6	.4	3	1.6	.4	2	1.0	.2	2	.9	.2	0	0.0	0.0
BEXAR	41	21.8	5.3	45	23.4	5.6	41	19.5	5.1	43	19.0	5.4	52	22.6	6.8
BLANCO	2	1.1	.3	3	1.6	.4	2	1.0	.2	3	1.3	.4	0	0.0	0.0
BURNET	4	2.1	.5	2	1.0	.3	1	.5	.1	4	1.8	.5	3	1.3	.4
CALDWELL	0	0.0	0.0	0	0.0	0.0	1	.5	.1	1	.4	.1	1	.4	.1
COMAL	2	1.1	.3	1	.5	.1	4	1.9	.5	4	1.8	.5	3	1.3	.4
FAYETTE	0	0.0	0.0	1	.5	.1	1	.5	.1	0	0.0	0.0	1	.4	.1
FRIO	1	.5	.1	3	1.6	.4	3	1.4	.4	2	.9	.2	1	.4	.1
GILLESPIE	1	.5	.1	0	0.0	0.0	0	0.0	0.0	1	.4	.1	0	0.0	0.0
GUADALUPE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	4	1.8	.5	3	1.3	.4
HAYS	1	.5	.1	0	0.0	0.0	1	.5	.1	0	0.0	0.0	0	0.0	0.0
KENDALL	2	1.1	.3	1	.5	.1	2	1.0	.2	2	.9	.2	2	.9	.3
KERR	2	1.1	.3	0	0.0	0.0	2	1.0	.2	2	.9	.2	5	2.2	.7
LEE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
LLANO	0	0.0	0.0	1	.5	.1	1	.5	.1	0	0.0	0.0	0	0.0	0.0
MEDINA	8	4.3	1.0	17	8.9	2.1	32	15.2	4.0	21	9.3	2.6	19	8.3	2.5
TRAVIS	33	17.6	4.3	36	18.8	4.5	39	18.6	4.9	49	21.7	6.1	58	21.7	6.5
WILLIAMSON	87	46.3	11.3	77	40.1	9.6	77	36.7	9.6	87	38.5	10.8	89	38.7	11.6
WILSON	0	0.0	0.0	2	1.0	.3	1	.5	.1	1	.4	.1	1	.4	.1
REGION	188		24.3	192		24.8	210		26.3	226		28.1	230		30.0
STATE	585		75.7	687		76.8	598		73.7	577		71.9	536		70.0
TOTAL	773			799			888			883			766		

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TABLE IV-10

TEXAS LUTHERAN	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
ATASCOSA	2	.6	.3	1	.3	.2	2	.5	.3	1	.2	.1	2	.4	.3
BANDERA	1	.3	.2	0	0.0	0.0	2	.5	.3	2	.4	.3	1	.2	.1
CASTROP	4	1.3	.7	2	.6	.3	3	.8	.4	3	.7	.4	4	.9	.5
BEXAR	85	27.1	14.1	189	32.5	16.4	128	32.8	17.9	157	34.5	19.8	196	42.2	24.8
BLANCO	2	.6	.3	2	.6	.3	4	1.0	.6	3	.7	.4	4	.9	.5
BURNET	1	.3	.2	1	.3	.2	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
CALDWELL	3	1.0	.5	2	.6	.3	1	.3	.1	2	.4	.3	5	1.1	.6
COMAL	16	5.1	2.7	28	6.0	3.0	16	4.1	2.2	24	5.3	3.0	20	4.3	2.5
FAYETTE	11	3.5	1.8	13	3.9	2.0	14	3.6	2.0	9	2.0	1.1	4	.9	.5
FRIO	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.2	.1
GILLESPIE	7	2.2	1.2	6	1.8	.9	13	3.3	1.8	9	2.0	1.1	9	1.9	1.1
GUADALUPE	119	37.9	19.7	117	34.9	17.6	139	35.6	19.5	175	38.5	22.1	155	33.4	19.6
HAYS	0	0.0	0.0	1	.3	.2	1	.3	.1	5	1.1	.6	2	.4	.3
KENDALL	4	1.3	.7	2	.6	.3	2	.5	.3	4	.9	.5	3	.6	.4
KERR	5	1.6	.8	5	1.5	.8	6	1.5	.8	9	2.0	1.1	7	1.5	.9
LEE	3	1.0	.5	0	0.0	0.0	0	0.0	0.0	1	.2	.1	1	.2	.1
LLANO	0	0.0	0.0	1	.3	.2	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
MEDINA	2	.6	.3	4	1.2	.6	3	.8	.4	1	.2	.1	0	0.0	0.0
TRAVIS	30	9.6	5.0	30	9.0	4.5	30	7.7	4.2	21	4.6	2.7	21	4.5	2.7
WILLIAMSON	9	2.9	1.5	8	2.4	1.2	13	3.3	1.8	11	2.4	1.4	14	3.0	1.8
WILSON	10	3.2	1.7	11	3.3	1.7	13	3.3	1.8	18	4.0	2.3	15	3.2	1.9
REGION	314		52.1	335		50.5	398		54.6	455		57.4	464		58.7
STATE	289		47.9	329		49.5	324		45.4	337		42.6	326		41.3
TOTAL	603			664			714			792			790		

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TABLE IV-11

TRINITY UNIVERS	1968			1969			1970			1971			1972		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
ATASCOSA	2	.2	.1	1	.1	.0	2	.1	.1	1	.1	.0	2	.1	.1
BANDERA	3	.3	.2	3	.2	.1	4	.3	.2	2	.1	.1	1	.1	.0
BASTROP	0	0.0	0.0	1	.1	.0	1	.1	.0	1	.1	.0	1	.1	.0
BEXAR	973	92.0	51.4	1156	94.4	56.7	1385	94.1	58.0	1468	94.0	58.9	1481	94.5	58.9
BLANCO	0	0.0	0.0	0	0.0	0.0	2	.1	.1	2	.1	.1	2	.1	.1
BURNET	0	0.0	0.0	0	0.0	0.0	2	.1	.1	2	.1	.1	2	.1	.1
CALDWELL	0	0.0	0.0	2	.2	.1	1	.1	.0	2	.1	.1	6	.4	.2
COMAL	3	.3	.2	3	.2	.1	5	.4	.2	9	.6	.4	13	.8	.5
FAYETTE	0	0.0	0.0	1	.1	.0	1	.1	.0	2	.1	.1	0	0.0	0.0
FRIO	3	.3	.2	4	.3	.2	3	.2	.1	3	.2	.1	1	.1	.0
GILLESPIE	0	0.0	0.0	0	0.0	0.0	2	.1	.1	2	.1	.1	1	.1	.0
GUADALUPE	5	.5	.3	6	.5	.3	8	.6	.4	4	.3	.2	5	.3	.2
HAYS	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.1	.0	3	.2	.1
KENDALL	1	.1	.1	4	.3	.3	7	.5	.3	5	.3	.2	3	.2	.1
KERR	5	.5	.3	7	.6	.3	7	.5	.3	6	.4	.2	9	.6	.4
LEE	1	.1	.1	0	0.0	0.0	0	0.0	0.0	1	.1	.0	0	0.0	0.0
LLANO	0	0.0	0.0	0	0.0	0.0	1	.1	.0	0	0.0	0.0	0	0.0	0.0
MEDINA	4	.4	.2	4	.3	.2	5	.4	.2	2	.1	.1	2	.1	.1
TRAVIS	43	4.1	2.3	27	2.2	1.3	25	1.8	1.1	21	1.4	.8	23	1.5	.9
WILLIAMSON	4	.4	.2	3	.2	.1	3	.2	.1	6	.4	.2	6	.4	.2
WILSON	1	.1	.1	1	.1	.0	3	.2	.1	8	.5	.3	6	.4	.2
REGION	1048		55.6	1223		60.0	1387		61.6	1548		62.1	1567		62.3
STATE	845		44.6	814		40.0	863		38.4	939		37.9	949		37.7
TOTAL	1893			2037			2250			2479			2516		

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TABLE IV-12

SAN ANTONIO COM	1968			1969			1970			1971			1972		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
ATASCOSA	59	.5	.5	81	.6	.6	65	.4	.4	74	.5	.5	98	.6	.6
BANDERA	4	.0	.0	12	.1	.1	7	.0	.0	21	.1	.1	15	.1	.1
BASTROP	1	.0	.0	2	.0	.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
BEXAR	11471	96.8	95.9	12838	96.8	95.8	14865	97.3	96.8	14983	97.3	96.7	13583	96.6	94.8
BLANCO	2	.0	.0	3	.0	.0	0	0.0	0.0	2	.0	.0	4	.0	.0
BURNET	0	0.0	0.0	0	0.0	0.0	1	.0	.0	1	.0	.0	2	.0	.0
CALDWELL	1	.0	.0	0	0.0	0.0	4	.0	.0	2	.0	.0	2	.0	.0
COMAL	58	.4	.4	58	.4	.4	48	.3	.3	55	.4	.4	62	.4	.4
FAYETTE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
FRIO	23	.2	.2	28	.2	.1	9	.1	.1	11	.1	.1	15	.1	.1
GILLESPIE	4	.0	.0	2	.0	.0	7	.0	.0	4	.0	.0	0	0.0	0.0
GUADALUPE	85	.7	.7	94	.7	.7	86	.6	.6	78	.5	.5	109	.8	.8
HAYS	9	.1	.1	14	.1	.1	10	.1	.1	5	.0	.0	0	0.0	0.0
KENDALL	28	.2	.2	29	.2	.2	22	.2	.2	26	.2	.2	39	.3	.3
KERR	13	.1	.1	7	.1	.1	5	.0	.0	10	.1	.1	9	.1	.1
LEE	0	0.0	0.0	1	.0	.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
LLANO	0	0.0	0.0	0	0.0	0.0	4	.0	.0	1	.0	.0	2	.0	.0
MEDINA	63	.5	.5	78	.5	.5	83	.6	.6	98	.6	.6	82	.6	.6
TRAVIS	7	.1	.1	5	.0	.0	2	.0	.0	1	.0	.0	7	.0	.0
WILLIAMSON	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.0	.0
WILSON	25	.2	.2	32	.2	.2	30	.2	.2	40	.3	.3	43	.3	.3
REGION	11845		99.0	13268		99.0	14448		99.5	15324		99.5	14065		97.4
STATE	119		1.0	135		1.0	76		.5	81		.5	381		2.6
TOTAL	11964			13395			14524			15405			14446		

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TABLE IV-13

ST. PHILLIPS	1968			1969			1970			1971			1972		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
ATASCOSA	3	.3	.3	1	.1	.1	7	.3	.3	4	.1	.1	6	.2	.2
BANDERA	1	.1	.1	0	0.0	0.0	0	0.0	0.0	1	.0	.0	1	.0	.0
BASTROP	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
BEXAR	1088	95.7	91.7	1686	97.1	94.9	2898	96.2	94.9	2957	98.1	97.8	3059	97.4	96.8
BLANCO	0	0.0	0.0	0	0.0	0.0	1	.0	.0	1	.0	.0	0	0.0	0.0
BURNET	0	0.0	0.0	1	.1	.1	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
CALDWELL	0	0.0	0.0	2	.1	.1	1	.0	.0	0	0.0	0.0	0	0.0	0.0
COMAL	9	.8	.8	7	.4	.4	6	.3	.3	4	.1	.1	9	.3	.3
FAYETTE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.0	.0
FRIO	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	2	.1	.1
GILLESPIE	0	0.0	0.0	1	.1	.1	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
GUADALUPE	16	1.4	1.4	14	.8	.8	35	1.6	1.6	32	1.1	1.1	43	1.4	1.4
HAYS	5	.4	.4	2	.1	.1	3	.1	.1	1	.0	.0	1	.0	.0
KENDALL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	4	.1	.1	4	.1	.1
KERR	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.0	.0
LEE	0	0.0	0.0	1	.1	.1	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
LLANO	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
MEDINA	5	.4	.4	5	.3	.3	13	.6	.6	2	.1	.1	10	.3	.3
TRAVIS	7	.6	.6	9	.5	.5	8	.4	.4	0	0.0	0.0	2	.1	.1
WILLIAMSON	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
WILSON	3	.3	.3	7	.4	.4	8	.4	.4	9	.3	.3	2	.1	.1
REGION	1129		95.8	1738		97.7	2188		98.6	3015		99.7	3141		99.4
STATE	49		4.2	41		2.3	30		1.4	10		.3	20		.6
TOTAL	1178			1779			2218			3025			3161		

AN ASTERISK INDICATES THAT ENROLLMENT DATA WAS NOT AVAILABLE

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[3]=PERCENT OF STUDENTS ATTENDING INSTITUTION ORIGINATING IN DESIGNATED COUNTY

TABLE IV-14

CONCORDIA	1968 [1]	1968 [2]	1968 [3]	1969 [1]	1969 [2]	1969 [3]	1970 [1]	1970 [2]	1970 [3]	1971 [1]	1971 [2]	1971 [3]	1972 [1]	1972 [2]	1972 [3]
ATASCOSA	0	0.0	0.0	5	5.9	3.2	1	.8	.5	0	0.0	0.0	1	.8	.5
BANDERA	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
BASTROP	2	2.6	1.2	1	1.2	.6	0	0.0	0.0	1	.8	.5	1	.8	.5
BEXAR	7	9.0	4.1	1	1.2	.6	7	5.7	3.3	8	6.7	4.1	12	9.3	5.9
BLANCO	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
BURNET	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
CALDWELL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
COMAL	0	0.0	0.0	1	1.2	.6	1	.8	.5	0	0.0	0.0	0	0.0	0.0
FAYETTE	1	1.3	.6	0	0.0	0.0	1	.8	.5	1	.8	.5	1	.8	.5
FRIO	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
GILLESPIE	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
GUADALUPE	0	0.0	0.0	2	2.4	1.3	1	.8	.5	1	.8	.5	2	1.6	1.0
HAYS	0	0.0	0.0	0	0.0	0.0	3	2.4	1.4	2	1.7	1.0	2	1.6	1.0
KENDALL	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
KERR	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.8	.5
LEE	4	5.1	2.3	1	1.2	.6	1	.8	.5	0	0.0	0.0	2	1.6	1.0
LLANO	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
MEDINA	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
TRAVIS	61	78.2	35.5	64	75.3	40.5	101	82.1	47.9	106	88.3	53.8	105	81.4	51.2
WILLIAMSON	3	3.8	1.7	10	11.8	6.3	7	5.7	3.3	1	.8	.5	2	1.6	1.0
WILSON	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
REGION	78		45.3	85		53.8	123		58.3	128		68.9	129		62.9
STATE	94		54.7	73		46.2	88		41.7	77		39.1	76		37.1
TOTAL	172			158			211			197			205		

AN ASTERISK INDICATES THAT ENROLLMENT DATA WAS NOT AVAILABLE

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TABLE IV-15

SCHREINER	1968			1969			1970			1971*			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
ATASCOSA	0	0.0	0.0	5	4.3	2.6	1	.9	.5				1	.9	.4
BANDERA	2	3.2	1.1	1	.9	.5	1	.9	.5				2	1.8	.8
BASTROP	0	0.0	0.0	0	0.0	0.0	1	.9	.5				2	1.8	.8
BEXAR	15	23.8	8.3	19	16.2	9.1	17	14.8	8.8				23	20.7	8.9
BLANCO	0	0.0	0.0	1	.9	.5	1	.9	.5				0	0.0	0.0
BURNET	2	3.2	1.1	0	0.0	0.0	2	1.7	1.0				0	0.0	0.0
CALDWELL	0	0.0	0.0	0	0.0	0.0	1	.9	.5				0	0.0	0.0
COMAL	2	3.2	1.1	1	.9	.5	0	0.0	0.0				0	0.0	0.0
FAYETTE	1	1.6	.6	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0
FRIO	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0				2	1.8	.8
GILLESPIE	7	11.1	3.9	5	4.3	2.6	6	5.2	3.1				10	9.0	3.9
GUADALUPE	1	1.6	.6	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0
HAYS	2	3.2	1.1	1	.9	.5	0	0.0	0.0				1	.9	.4
KENDALL	1	1.6	.6	3	2.6	1.6	0	0.0	0.0				3	2.7	1.2
KERR	22	34.9	12.2	69	59.8	33.8	75	65.2	38.9				58	52.3	22.5
LEE	1	1.6	.6	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0
LLANO	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0				0	0.0	0.0
MEDINA	1	1.6	.6	3	2.6	1.6	2	1.7	1.0				1	.9	.4
TRAVIS	5	7.9	2.8	4	3.4	1.9	4	3.5	2.1				4	3.6	1.6
WILLIAMSON	0	0.0	0.0	1	.9	.5	1	.9	.5				0	0.0	0.0
WILSON	1	1.6	.6	4	3.4	1.9	3	2.6	1.6				4	3.6	1.6
REGION	63		35.0	117		56.8	115		59.6				111		43.0
STATE	117		65.0	92		44.0	78		40.4				147		57.0
TOTAL	180			209			193						258		

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TABLE IV-16

ABTACOSA	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
SOUTHWEST TEXAS	55	29.4	14.2	54	26.8	12.9	76	34.1	17.9	80	36.4	19.3	75	30.5	18.8
UT-AUSTIN	41	21.9	10.6	35	16.8	8.4	35	15.7	8.2	35	15.9	8.5	33	13.4	7.9
HUSTON-TILLOTSO	0	0.0	0.0	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0
INCARNATE WORD	0	0.0	0.0	0	0.0	0.0	5	2.2	1.2	3	1.4	.7	4	1.6	1.0
OUR LADY OF LAK	19	10.2	4.9	16	7.7	3.8	20	9.0	4.7	15	6.8	3.6	19	7.7	4.6
ST EDWARDS	0*	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
ST MARY,S	5	2.7	1.3	9	4.3	2.1	9	4.0	2.1	6	2.7	1.4	13	5.3	3.1
SOUTHWESTERN UN	1	.5	.3	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
TEXAS LUTHERAN	2	1.1	.5	1	.5	.2	2	.9	.5	1	.5	.2	2	.8	.5
TRINITY UNIVERS	2	1.1	.5	1	.5	.2	2	.9	.5	1	.5	.2	2	.8	.5
SAN ANTONIO COM	59	31.6	15.2	81	38.9	19.3	65	29.1	15.3	74	33.6	17.9	98	38.6	21.6
ST. PHILLIPS	3	1.6	.8	1	.5	.2	7	3.1	1.6	4	1.8	1.0	6	2.4	1.4
CONCORDIA	0	0.0	0.0	5	2.4	1.2	1	.4	.2	0	0.0	0.0	1	.4	.2
SCHREINER	0	0.0	0.0	5	2.4	1.2	1	.4	.2	1*	.5	.2	1	.4	.2
REGION	187		48.2	208		49.6	223		52.5	228		53.1	246		59.8
STATE	281		51.8	211		50.4	202		47.5	194		46.9	171		41.8
TOTAL	388			419			425			414			417		

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TABLE IV-17

BANDERA	1968			1969			1970			1971			1972		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
SOUTHWEST TEXAS	25	46.3	21.9	30	48.4	22.7	23	43.4	16.1	12	22.9	10.5	16	34.8	14.8
UT-AUSTIN	10	18.5	8.8	11	17.7	8.3	12	22.6	8.4	10	18.7	8.7	7	15.2	6.5
HUSTON-TILLOTSO	0	0.0	0.0	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0
INCARNATE WORD	1	1.9	.9	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUR LADY OF LAK	0	0.0	0.0	1	1.6	2.3	3	5.7	2.1	2	3.7	1.7	0	0.0	0.0
ST. EDWARDS	1*	1.9	.9	1*	1.6	.8	1	1.9	.7	1	1.9	.9	1	2.2	.9
ST. MARY.S	6	11.1	5.3	1	1.6	.8	0	0.0	0.0	1	1.9	.9	2	4.3	1.9
SOUTHWESTERN UN	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
TEXAS LUTHERAN	1	1.9	.9	0	0.0	0.0	2	3.8	1.4	2	3.7	1.7	1	2.2	.9
TRINITY UNIVERS	3	5.6	2.6	3	4.8	2.3	4	7.5	2.8	2	3.7	1.7	1	2.2	.9
SAN ANTONIO COM	4	7.4	3.5	12	19.4	9.1	7	13.2	4.9	21	39.3	18.3	15	32.6	13.9
ST. PHILLIPS	1	1.9	.9	0	0.0	0.0	0	0.0	0.0	1	1.9	.9	1	2.2	.9
CONCORDIA	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
SCHREINER	2	3.7	1.8	1	1.6	.8	1	1.9	.7	2*	2.8	1.3	2	4.3	1.9
REGION	54		47.4	62		47.8	53		37.1	53		46.7	46		42.6
STATE	68		52.6	78		53.8	98		62.9	61		53.3	62		57.4
TOTAL	114			132			143			114			108		

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TABLE IV-18

BASTROP	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
SOUTHWEST TEXAS	55	33.5	16.3	54	33.9	16.7	76	47.1	23.6	80	47.8	24.2	75	44.4	21.9
UT-AUSTIN	86	52.4	25.5	86	53.9	26.7	67	41.5	20.8	66	39.4	20.8	75	44.4	21.9
HUSTON-TILLOTSO	7	4.3	2.1	5	3.1	1.6	7*	4.8	2.8	8	4.8	2.4	8	4.7	2.3
INCARNATE WORD	2	1.2	.6	1	.6	.3	1	.6	.3	0	0.0	0.0	0	0.0	0.0
OUR LADY OF LAK	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
ST EDWARDS	4*	2.6	1.3	5*	2.8	1.4	4	2.5	1.2	5	3.0	1.5	3	1.8	.9
ST MARY,S	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
SOUTHWESTERN UN	3	1.8	.9	3	1.9	.9	2	1.2	.6	2	1.2	.6	0	0.0	0.0
TEXAS LUTHERAN	4	2.4	1.2	2	1.3	.6	3	1.9	.9	3	1.8	.9	4	2.4	1.2
TRINITY UNIV.	0	0.0	0.0	1	.6	.3	1	.6	.3	1	.6	.3	1	.6	.3
SAN ANTONIO COM	1	.6	.3	2	1.3	.6	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
ST. PHILLIPS	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
CONCORDIA	2	1.2	.6	1	.6	.3	0	0.0	0.0	1	.6	.3	1	.6	.3
SCHREINER	0	0.0	0.0	0	0.0	0.0	1	.6	.3	2*	.9	.5	2	1.2	.6
REGION	164		48.7	159		49.5	165		58.2	167		58.7	169		49.4
STATE	173		51.3	163		50.8	168		49.8	163		49.3	173		50.6
TOTAL	337			322			321			330			342		

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TABLE IV-19

BEXAR	1968			1969			1970			1971			1972		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
SOUTHWEST TEXAS	1515	6.6	5.7	1755	6.7	5.8	1916	6.8	5.9	2274	7.4	6.4	2379	8.0	6.9
UT-AUSTIN	2361	10.3	8.9	2861	10.9	9.5	3241	11.4	10.0	3338	10.8	9.5	3368	11.3	9.7
HUSTON-TILLOTSO	47	.2	.2	24	.1	.1	19*	.1	.1	15	.0	.0	10	.1	.1
INCARNATE WORD	865	3.8	3.2	905	3.6	3.1	998	3.5	3.1	1080	3.5	3.1	1024	3.4	3.0
OUR LADY OF LAK	1128	4.9	4.2	1158	4.4	3.9	1441	5.1	4.5	1698	5.5	4.8	1868	6.3	5.4
ST EDWARDS	37*	.2	.1	37*	.1	.1	37	.1	.1	37	.1	.1	37	.1	.1
ST. MARY.S	3398	14.8	12.8	3598	13.7	12.0	3842	13.7	9.4	2989	9.4	8.2	2682	9.0	7.7
SOUTHWESTERN UN	41	.2	.2	45	.2	.1	41	.1	.1	43	.1	.1	52	.2	.1
TEXAS LUTHERAN	85	.4	.3	109	.4	.4	128	.5	.4	157	.5	.4	196	.7	.6
TRINITY UNIVERS	973	4.2	3.7	1154	4.4	3.8	1385	4.6	4.0	1468	4.7	4.1	1481	5.0	4.3
SAN ANTONIO COM	11471	49.8	43.1	12838	48.9	42.7	14865	49.6	43.5	14983	48.2	42.2	13583	45.6	39.1
ST. PHILLIPS	1088	4.7	4.1	1688	6.4	5.6	2098	7.4	6.5	2997	9.6	8.4	3059	10.3	8.8
CONCORDIA	7	.0	.0	1	.0	.0	7	.0	.0	8	.0	.0	12	.0	.0
SCHREINER	15	.1	.1	19	.1	.1	17	.1	.1	28*	.1	.1	23	.1	.1
REGION	23023		86.4	26228		87.3	28347		87.7	30899		87.6	29782		85.8
STATE	3689		13.6	3802		12.7	3962		12.3	4376		12.4	4915		14.2
TOTAL	26632			30026			32309			35275			34697		

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TABLE IV-20

BLANCO

	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
SOUTHWEST TEXAS	43	66.2	42.6	45	62.5	42.9	43	58.9	40.2	43	63.2	42.6	43	68.3	41.0
UT-AUSTIN	16	24.6	15.8	17	23.6	16.2	18	24.7	16.8	12	17.6	11.9	9	14.3	8.6
HUSTON-TILLITSO	0	0.0	0.0	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0
INCARNATE WORD	0	0.0	0.0	1	1.4	1.0	1	1.4	.9	0	0.0	0.0	0	0.0	0.0
OUR LADY OF LAK	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
ST. EDWARDS	0*	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	1.6	1.0
ST. MARY.S	0	0.0	0.0	0	0.0	0.0	1	1.4	.9	1	1.5	1.0	0	0.0	0.0
SOUTHWESTERN UN	2	3.1	2.0	3	4.2	2.9	2	2.7	1.9	3	4.4	3.0	0	0.0	0.0
TEXAS LUTHERAN	2	3.1	2.0	2	2.8	1.9	4	5.5	3.7	3	4.4	3.0	4	6.3	3.8
TRINITY UNIVERS	0	0.0	0.0	0	0.0	0.0	2	2.7	1.9	2	2.9	2.0	2	3.2	1.9
SAN ANTONIO COM	2	3.1	2.0	3	4.2	2.9	0	0.0	0.0	2	2.9	2.0	4	6.3	3.8
ST. PHILLIPS	0	0.0	0.0	0	0.0	0.0	1	1.4	.9	1	1.5	1.0	0	0.0	0.0
CONCORDIA	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
SCHREINER	0	0.0	0.0	1	1.4	1.0	1	1.4	.9	1*	1.5	1.0	0	0.0	0.0
REGION	65		64.4	72		68.6	73		68.2	68		67.3	63		60.0
STATE	36		35.6	33		31.4	36		31.8	33		32.7	42		40.0
TOTAL	101			105			107			101			105		

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TABLE IV-21

BURNET

	1968			1969			1970			1971			1972		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
SOUTHWEST TEXAS	49	46.7	21.2	51	50.0	22.5	54	48.2	22.6	49	42.6	20.3	48	36.4	16.6
UT-AUSTIN	42	40.0	18.2	42	41.2	18.5	47	42.0	19.7	52	45.2	21.6	58	52.7	24.1
HUSTON-TILLITSO	1	1.0	.4	1	1.0	.4	1*	.9	.4	0	0.0	0.0	0	0.0	0.0
INCARNATE WORD	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUR LADY OF LAK	0	0.0	0.0	0	0.0	0.0	1	.9	.4	0	0.0	0.0	0	0.0	0.0
ST EDWARDS	2*	1.9	.9	2*	2.0	.9	2	1.8	.8	2	1.7	.8	2	1.8	.8
ST. MARY,S	4	3.8	1.7	2	2.0	.9	1	.9	.4	4	3.5	1.7	3	2.7	1.2
SOUTHWESTERN UN	4	3.8	1.7	2	2.0	.9	1	.9	.4	4	3.5	1.7	3	2.7	1.2
TEXAS LUTHERAN	1	1.0	.4	1	1.0	.4	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
TRINITY UNIVERS	0	0.0	0.0	0	0.0	0.0	2	1.8	.8	2	1.7	.8	2	1.8	.8
SAN ANTONIO COM	0	0.0	0.0	0	0.0	0.0	1	.9	.4	1	.9	.4	2	1.8	.8
ST. PHILLIPS	0	0.0	0.0	1	1.0	.4	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
CONCORDIA	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
SCHREINER	2	1.9	.9	0	0.0	0.0	2	1.8	.8	1*	.9	.4	0	0.0	0.0
REGION	105		45.5	102		44.9	112		46.9	115		47.7	110		45.6
STATE	126		54.5	125		55.1	127		53.1	126		52.3	131		54.4
TOTAL	231			227			239			241			241		

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TABLE IV-22

CALDWELL	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
SOUTHWEST TEXAS	173	68.6	47.5	282	71.5	49.9	181	78.8	48.3	186	74.7	52.2	185	74.8	49.5
UT-AUSTIN	73	28.9	20.0	78	24.8	17.3	96	21.9	15.8	46	17.7	12.4	46	17.6	11.8
HUSTON-TILLOTSO	0	0.0	0.0	2	.7	.5	4*	1.4	.9	5	2.8	1.4	2	.8	.5
INCARNATE WORD	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUR LADY OF LAK	1	.4	.3	1	.4	.2	5	2.0	1.3	4	1.6	1.1	2	.8	.5
ST. EDWARDS	1*	.5	.3	2*	.5	.4	1	.4	.3	2	.8	.6	2	.8	.5
ST. MARY,S	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.4	.3
SOUTHWESTERN UN	0	0.0	0.0	0	0.0	0.0	1	.4	.3	1	.4	.3	1	.4	.3
TEXAS LUTHERAN	3	1.2	.8	2	.7	.5	1	.4	.3	2	.8	.6	5	2.0	1.3
TRINITY UNIVERS	0	0.0	0.0	2	.7	.5	1	.4	.3	2	.8	.6	6	2.4	1.6
SAN ANTONIO COM	1	.4	.3	0	0.0	0.0	4	1.6	1.1	2	.8	.6	2	.8	.5
ST. PHILLIPS	0	0.0	0.0	2	.7	.5	1	.4	.3	0	0.0	0.0	0	0.0	0.0
CONCORDIA	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
SCHREINER	0	0.0	0.0	0	0.0	0.0	1	.4	.3	1*	.4	.3	0	0.0	0.0
REGION	252		69.3	282		69.8	255		68.2	249		69.9	250		66.8
STATE	112		30.7	122		30.2	119		31.8	107		30.1	124		33.2
TOTAL	364			404			374			356			374		

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TABLE IV-23

COMAL

	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
SOUTHWEST TEXAS	271	62.8	46.3	276	60.4	46.2	276	61.3	45.5	324	63.2	47.8	304	59.8	42.7
UT-AUSTIN	75	17.2	13.4	79	17.3	13.2	76	16.9	12.5	78	13.6	10.1	77	15.2	10.8
HUSTON-TILLITSO	0	0.0	0.0	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0
INCARNATE WORD	5	1.1	.9	4	.9	.7	6	1.3	1.0	8	1.6	1.2	5	1.0	.7
OUR LADY OF LAK	2	.5	.4	3	.7	.5	3	.7	.5	4	.8	.6	3	.6	.4
ST. EDWARDS	0*	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
ST. MARY.S	2	.5	.4	4	.9	.7	9	2.0	1.5	11	2.1	1.6	12	2.4	1.7
SOUTHWESTERN UN	2	.5	.4	1	.2	.2	4	.9	.7	4	.8	.6	3	.6	.4
TEXAS LUTHERAN	16	3.7	2.9	20	4.4	3.4	16	3.6	2.6	24	4.7	3.5	20	3.9	2.8
TRI ITY UNIVERS	3	.7	.5	3	.7	.5	5	1.1	.8	9	1.8	1.3	13	2.6	1.8
SAN ANTONIO COM	50	11.4	8.9	58	12.7	9.7	48	10.7	7.9	55	10.7	8.0	62	12.2	8.7
ST. PHILLIPS	9	2.1	1.6	7	1.5	1.2	6	1.3	1.0	4	.8	.6	9	1.8	1.3
CORCORDIA	0	0.0	0.0	1	.2	.2	1	.2	.2	0	0.0	0.0	0	0.0	0.0
SCHREINER	2	.5	.4	1	.2	.2	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0
REGION	457		77.9	457		76.5	450		74.3	513		74.[illegible]	500		71.3
STATE	124		22.1	140		23.5	156		25.7	177		25.7	204		28.7
TOTAL	561			597			606			690			712		

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TABLE IV-24

FAYETTE	1968			1969			1970			1971			1972		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
SOUTHWEST TEXAS	61	38.3	14.8	62	37.7	12.7	57	35.6	11.8	52	34.4	11.4	46	32.2	11.6
UT-AUSTIN	76	47.7	17.5	78	47.4	16.8	78	48.7	16.1	88	53.8	17.5	81	56.6	20.5
HUSTON-TILLOTSO	1	.6	.2	2	1.2	.6	2*	1.2	.4	2	1.3	.4	5	3.5	1.3
INCARNATE WORD	2	1.3	.5	1	.6	.2	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUR LADY OF LAK	0	0.0	0.0	2	1.2	.6	2	1.2	.4	1	.7	.2	1	.7	.3
ST. EDWARDS	1*	.6	.3	2*	.9	.3	1	.6	.2	2	1.3	.4	2	1.4	.5
ST. MARY.S	5	3.1	1.2	3	1.8	.6	3	1.9	.6	2	1.3	.4	1	.7	.3
SOUTHWESTERN UN	0	0.0	0.0	1	.6	.2	1	.6	.2	0	0.0	0.0	1	.7	.3
TEXAS LUTHERAN	11	6.9	2.5	13	7.9	2.7	14	8.7	2.9	9	6.0	2.0	4	2.8	1.0
TRINITY UNIVERS	0	0.0	0.0	1	.6	.2	1	.6	.2	2	1.3	.4	0	0.0	0.0
SAN ANTONIO COM	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
ST. PHILLIPS	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.7	.3
CONCORDIA	1	.6	.2	0	0.0	0.0	1	.6	.2	1	.7	.2	1	.7	.3
SCHREINER	1	.6	.2	0	0.0	0.0	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0
REGION	159		36.7	164		33.7	160		33.1	151		33.8	143		36.2
STATE	275		63.3	323		66.3	323		66.9	286		67.8	252		63.8
TOTAL	434			488			483			437			395		

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TABLE IV-25

FRID	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
SOUTHWEST TEXAS	18	25.4	10.4	21	30.9	11.2	36	43.9	16.4	33	48.2	14.7	33	33.8	14.6
UT-AUSTIN	17	23.9	9.8	13	19.1	6.9	20	24.4	9.1	22	26.8	9.8	25	25.8	11.1
HUSTON-TILLOTSO	0	0.0	0.0	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0
INCARNATE WORD	2	2.8	1.2	0	0.0	0.0	1	1.2	.5	2	2.4	.9	4	4.0	1.8
OUR LADY OF LAK	2	2.8	1.2	4	5.9	2.1	4	4.9	1.8	6	7.3	2.7	8	8.0	3.5
ST. EDWARDS	0*	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
ST. MARY,S	5	7.0	2.9	3	4.4	1.6	6	7.3	2.7	2	2.4	.9	8	8.0	3.5
SOUTHWESTERN UN	1	1.4	.6	3	4.4	1.6	3	3.7	1.4	2	2.4	.9	1	1.0	.4
TEXAS LUTHERAN	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	1.0	.4
TRINITY UNIVERS	3	4.2	1.7	4	5.9	2.1	3	3.7	1.4	3	3.7	1.3	1	1.0	.4
SAN ANTONIO COM	23	32.4	13.3	20	29.4	10.6	9	11.0	4.1	11	13.4	4.9	15	15.0	6.6
ST. PHILLIPS	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	2	2.0	.9
CONCORDIA	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
SCHREINER	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1*	1.2	.4	2	2.0	.9
REGION	71		41.0	68		36.2	82		37.3	82		36.4	100		44.2
STATE	102		59.0	120		63.8	138		62.7	143		63.6	126		55.8
TOTAL	173			188			220			225			226		

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TABLE IV-26

GILLESPIE	1968			1969			1970			1971			1972		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
SOUTHWEST TEXAS	63	41.6	21.8	68	43.8	22.8	69	39.9	21.4	85	48.9	26.2	89	49.2	27.6
UT-AUSTIN	60	39.6	20.8	66	40.5	21.5	68	39.3	21.1	55	31.6	16.9	60	33.1	18.6
HOUSTON TILLTSO	0	0.0	0.0	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0
INCARNATE WORD	3	2.0	1.0	1	.6	.3	1	.6	.3	1	.6	.3	1	.6	.3
OUR LADY OF LAK	0	0.0	0.0	1	.6	.3	2	1.2	.6	2	1.1	.6	2	1.1	.6
ST. EDWARDS	5*	3.0	1.6	5*	3.2	1.7	4	2.3	1.2	6	3.4	1.8	7	3.9	2.2
ST. MARY,S	2	1.3	.7	5	3.2	1.7	1	.6	.3	1	.6	.3	2	1.1	.6
SOUTHWESTERN UN	1	.7	.3	0	0.0	0.0	0	0.0	0.0	1	.6	.3	0	0.0	0.0
TEXAS LUTHERAN	7	4.6	2.4	6	3.8	2.0	13	7.5	4.0	9	5.2	2.8	9	5.0	2.8
TRINITY UNIVERS	0	0.0	0.0	0	0.0	0.0	2	1.2	.6	2	1.1	.6	1	.6	.3
SAN ANTONIO COM	4	2.6	1.4	2	1.3	.7	7	4.0	2.2	4	2.3	1.2	0	0.0	0.0
ST. PHILLIPS	0	0.0	0.0	1	.6	.3	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
CONCORDIA	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
SCHREINER	7	4.6	2.4	5	3.2	1.7	6	3.5	1.9	8*	4.6	2.5	10	5.5	3.1
REGION	151		52.5	158		53.0	173		53.6	174		53.5	181		56.0
STATE	137		47.5	140		47.0	150		46.4	151		46.5	142		44.0
TOTAL	288			298			323			325			323		

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TABLE IV-27

GUADALUPE	1968			1969			1970			1971			1972		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
SOUTHWEST TEXAS	229	41.4	32.2	262	43.4	34.1	263	40.3	31.2	291	41.6	32.3	298	40.8	38.6
UT-AUSTIN	76	13.7	10.7	85	14.1	11.1	94	14.4	11.2	95	13.6	10.5	94	13.0	9.9
HUSTON TILLOTSO	0	0.0	0.0	0	0.0	0.0	1*	.2	.1	1	.1	.1	3	.4	.3
INCARNATE WORD	11	2.0	1.5	11	1.8	1.4	9	1.4	1.1	6	.9	.7	6	.8	.6
OUR LADY OF LAK	5	.9	.7	6	1.0	.8	7	1.1	.8	6	.9	.7	6	.8	.6
ST. EDWARDS	0*	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
ST. MARY,S	6	1.1	.8	7	1.2	.9	10	1.5	1.2	6	.9	.7	9	1.2	1.0
SOUTHWESTERN UN	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	4	.6	.4	3	.4	.3
TEXAS LUTHERAN	119	21.5	16.7	117	19.4	15.2	139	21.3	16.5	175	25.0	19.4	155	21.4	16.4
TRINITY UNIVERS	5	.9	.7	6	1.0	.8	8	1.2	1.0	4	.6	.4	5	.7	.5
SAN ANTONIO COM	85	15.4	11.9	94	15.6	12.2	86	13.2	10.2	78	11.2	8.6	109	15.0	11.5
ST. PHILLIPS	16	2.9	2.2	14	2.3	1.8	35	5.4	4.2	32	4.6	3.5	43	5.9	4.5
CONCORDIA	0	0.0	0.0	2	.3	.3	1	.2	.1	1	.1	.1	2	.3	.2
SCHREINER	1	.2	.1	0	0.0	0.0	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0
REGION	553		77.7	604		78.6	653		77.6	699		77.5	725		76.6
STATE	159		22.3	164		21.4	189		22.4	203		22.5	222		23.4
TOTAL	712			768			842			902			947		

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TABLE IV-28

HAYS

	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
SOUTHWEST TEXAS	671	85.8	76.1	642	83.5	73.7	628	82.3	73.8	646	83.1	71.9	622	83.5	73.2
UT-AUSTIN	88	11.1	10.8	96	12.5	11.8	99	13.8	11.6	108	12.8	11.1	100	13.4	11.8
HUSTON-TILLOTSO	1	.1	.1	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	1	.1	.1
INCARNATE WORD	0	0.0	0.0	1	.1	.1	1	.1	.1	3	.4	.3	2	.3	.2
OUR LADY OF LAK	9	1.1	1.0	5	.7	.6	10	1.3	1.2	7	.9	.8	1	.1	.1
ST. EDWARDS	3*	.4	.4	4*	.5	.6	3	.4	.4	4	.5	.4	5	.7	.6
ST. MARY.S	0	0.0	0.0	3	.4	.3	4	.5	.5	3	.4	.3	5	.7	.6
SOUTHWESTERN UN	1	.1	.1	0	0.0	0.0	1	.1	.1	0	0.0	0.0	0	0.0	0.0
TEXAS LUTHERAN	0	0.0	0.0	1	.1	.1	1	.1	.1	5	.6	.6	2	.3	.2
TRINITY UNIVERS	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.1	.1	3	.4	.4
SAN ANTONIO COM	9	1.1	1.0	14	1.8	1.6	10	1.3	1.2	5	.6	.6	0	0.0	0.0
ST. PHILLIPS	5	.6	.6	2	.3	.2	3	.4	.4	1	.1	.1	1	.1	.1
CONCORDIA	0	0.0	0.0	0	0.0	0.0	3	.4	.4	2	.3	.2	2	.3	.2
SCHREINER	2	.3	.2	1	.1	.1	0	0.0	0.0	1*	.1	.1	1	.1	.1
REGION	789		89.5	768		88.2	763		89.7	788		86.6	745		87.6
STATE	93		10.5	103		11.8	88		10.3	121		13.4	105		12.4
TOTAL	882			871			851			981			850		

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TABLE IV-29

KENDALL	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
SOUTHWEST TEXAS	31	28.7	17.5	46	34.3	21.9	44	35.8	23.4	36	29.6	17.5	43	30.3	19.2
UT-AUSTIN	23	21.3	13.0	26	19.4	12.4	27	22.8	14.4	25	20.6	12.2	26	18.3	11.6
HUSTON-TILLOTSO	0	0.0	0.0	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0
INCARNATE WORD	2	1.9	1.1	6	4.5	2.9	7	5.7	3.7	5	4.1	2.4	11	7.7	4.9
OUR LADY OF LAK	10	9.3	5.6	6	4.5	2.9	4	3.3	2.1	3	2.5	1.5	5	3.5	2.2
ST. EDWARDS	0*	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
ST. AMRY.S	6	5.6	3.4	9	6.7	4.3	6	6.5	4.3	10	8.2	4.9	3	2.1	1.3
SOUTHWESTERN UN	2	1.9	1.1	1	.7	.5	2	1.6	1.1	2	1.6	1.0	2	1.4	.9
TEXAS LUTHERAN	4	3.7	2.3	2	1.5	1.0	2	1.6	1.1	4	3.3	1.9	3	2.1	1.3
TRINITY UNIVERS	1	.9	.6	6	4.5	2.9	7	5.7	3.7	5	4.1	2.4	3	2.1	1.3
SAN ANTONIO COM	28	25.9	15.8	29	21.6	13.8	22	17.9	11.7	26	21.4	12.7	39	27.5	17.4
ST. PHILLIPS	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	4	3.3	1.9	4	2.8	1.8
CONCORDIA	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
SCHREINER	1	.9	.6	3	2.2	1.4	0	0.0	0.0	2*	1.2	.7	3	2.1	1.3
REGION	108		61.8	134		63.8	123		65.4	121		59.1	142		63.4
STATE	69		39.8	76		36.2	65		34.6	84		40.9	82		36.6
TOTAL	177			210			188			205			224		

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TABLE IV-30

KERR	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
SOUTHWEST TEXAS	52	30.9	13.8	40	23.4	12.8	60	25.6	13.1	49	21.4	10.6	41	18.3	9.1
UT-AUSTIN	57	33.9	15.1	67	32.8	16.6	71	30.1	15.5	71	30.9	15.4	78	34.8	17.4
HUSTON-TILLOTSO	0	0.0	0.0	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0
INCARNATE WORD	7	4.2	1.9	0	0.0	0.0	3	1.3	.7	8	3.5	1.7	6	2.7	1.3
OUR LADY OF LAK	0	0.0	0.0	1	.5	.2	1	.4	.2	2	.9	.4	4	1.8	.9
ST. EDWARDS	3*	1.9	.9	4*	1.7	.9	3	1.3	.7	4	1.7	.9	4	1.8	.9
ST. MARY.S	2	1.2	.5	1	.5	.2	3	1.3	.7	2	.9	.4	1	.4	.2
SOUTHWESTERN UN	2	1.2	.5	0	0.0	0.0	2	.8	.4	2	.9	.4	5	2.2	1.1
TEXAS LUTHERAN	5	3.0	1.3	5	2.4	1.2	6	2.5	1.3	9	3.9	1.9	7	3.1	1.6
TRINITY UNIVERS	5	3.0	1.3	7	3.3	1.7	7	3.0	1.5	6	2.6	1.3	9	4.0	2.0
SAN ANTONIO COM	13	7.7	3.4	7	3.3	1.7	5	2.1	1.1	10	4.4	2.2	9	4.0	2.0
ST. PHILLIPS	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.4	.2
CONCORDIA	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.4	.2
SCHREINER	22	13.1	5.8	69	32.9	16.9	75	31.8	16.4	66*	29.0	14.4	58	25.9	12.9
REGION	168		44.4	209		51.0	236		51.5	229		49.6	224		49.9
STATE	209		55.2	198		48.4	222		48.5	233		50.4	225		50.1
TOTAL	377			407			458			463			449		

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TABLE IV-31

LEE

	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
SOUTHWEST TEXAS	9	22,0	4,9	10	29,4	5,4	13	31,7	6,6	22	50,0	11,5	20	51,3	11,2
UT-AUSTIN	17	41,5	9,3	17	50,0	9,1	22	53,7	11,2	14	31,8	7,3	13	33,3	7,3
HUSTON-TILLOTSO	4	14,6	3,3	2	5,9	1,1	4*	9,8	2,0	6	13,6	3,1	2	5,1	1,1
INCARNATE WORD	0	0,0	0,0	0	0,0	0,0	0	0,0	0,0	0	0,0	0,0	0	0,0	0,0
OUR LADY OF LAK	0	0,0	0,0	2	5,9	1,1	1	2,4	,5	0	0,0	0,0	0	0,0	0,0
ST, EDWARDS	0*	0,0	0,0	0*	0,0	0,0	0	0,0	0,0	0	0,0	0,0	0	0,0	0,0
ST, MARY,S	0	0,0	0,0	0	0,0	0,0	0	0,0	0,0	0	0,0	0,0	1	2,6	,6
SOUTHWESTERN UN	0	0,0	0,0	0	0,0	0,0	0	0,0	0,0	0	0,0	0,0	0	0,0	0,0
TEXAS LUTHERAN	3	7,3	1,6	0	0,0	0,0	0	0,0	0,0	1	2,3	,5	1	2,6	,6
TRINITY UNIVERS	1	2,4	,5	0	0,0	0,0	0	0,0	0,0	1	2,3	,5	0	0,0	0,0
SAN ANTONIO COM	0	0,0	0,0	1	2,9	,5	0	0,0	0,0	0	0,0	0,0	0	0,0	0,0
ST, PHILLIPS	0	0,0	0,0	1	2,9	,5	0	0,0	0,0	0	0,0	0,0	0	0,0	0,0
CONCORDIA	4	9,8	2,2	1	2,9	,5	1	2,4	,5	0	0,0	0,0	2	5,1	1,1
SCHREINER	1	2,4	,5	0	0,0	0,0	0	0,0	0,0	0*	0,0	0,0	0	0,0	0,0
REGION	41		22,5	34		18,3	41		20,8	44		22,9	39		21,9
STATE	141		77,5	152		81,7	156		79,2	148		77,1	139		78,1
TOTAL	182			186			197			192			178		

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TABLE IV-32

LLANO	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
SOUTHWEST TEXAS	31	56.4	19.1	24	46.2	15.8	24	53.3	17.8	23	57.5	15.2	25	67.6	19.1
UT-AUSTIN	23	41.8	14.2	26	50.0	16.7	15	33.3	11.1	16	40.0	10.6	10	27.0	7.6
HUSTON-TILLOTSO	0	0.0	0.0	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0
INCARNATE WORD	1	1.8	.6	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
OUR LADY OF LAK	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
ST. EDWARDS	0*	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
ST. MARY,S	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
SOUTHWESTERN UN	0	0.0	0.0	1	1.9	.6	1	2.2	.7	0	0.0	0.0	0	0.0	0.0
TEXAS LUTHERAN	0	0.0	0.0	1	1.9	.6	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
TRINITY UNIVERS	0	0.0	0.0	0	0.0	0.0	1	2.2	.7	0	0.0	0.0	0	0.0	0.0
SAN ANTONIO COM	0	0.0	0.0	0	0.0	0.0	4	8.9	3.0	1	2.5	.7	2	5.4	1.5
ST. PHILLIPS	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
CONCORDIA	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
SCHREINER	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0
REGION	55		34.0	52		33.3	45		33.3	48		26.5	37		28.2
STATE	107		66.0	104		66.7	90		66.7	111		73.5	94		71.8
TOTAL	162			156			135			151			131		

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TABLE IV-33

MEDINA

	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
SOUTHWEST TEXAS	0	0.0	0.0	0	0.0	0.0	95	30.4	17.5	0	0.0	0.0	119	40.9	23.0
UT-AUSTIN	37	24.5	10.8	43	23.6	11.8	39	12.5	7.2	48	22.2	8.5	34	11.7	6.6
HUSTON-TILLOTSO	0	0.0	0.0	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0
INCARNATE WORD	6	4.0	1.7	4	2.2	1.0	5	1.6	.9	5	2.8	1.1	5	1.7	1.0
OUR LADY OF LAK	24	15.9	7.0	38	16.5	7.7	34	10.9	6.3	18	10.0	3.8	17	5.8	3.3
ST. EDWARDS	0*	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.3	.2
SOUTHWESTERN UN	1	.7	.3	2	1.1	.5	2	.6	.4	0	0.0	0.0	1	.3	.2
ST. MARY.S	8	5.3	2.3	17	9.3	4.4	32	10.2	5.9	21	11.6	4.5	19	6.5	3.7
TEXAS LUTHERAN	2	1.3	.6	4	2.2	1.0	3	1.0	.6	1	.6	.2	0	0.0	0.0
TRINITY UNIVERS	4	2.6	1.2	4	2.2	1.0	5	1.6	.9	2	1.1	.4	2	.7	.4
SAN ANTONIO COM	63	41.7	18.3	70	38.5	17.9	83	26.5	15.3	90	49.9	19.2	82	28.2	15.9
ST. PHILLIPS	5	3.3	1.5	5	2.7	1.3	13	4.2	2.4	2	1.1	.4	10	3.4	1.9
CONCORDIA	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
SCHREINER	1	.7	.3	3	1.6	.8	2	.6	.4	2*	.8	.3	1	.3	.2
REGION	151		43.9	182		46.7	313		57.6	188		38.4	291		56.3
STATE	193		56.1	208		53.3	230		42.4	289		61.6	226		43.7
TOTAL	344			390			543			469			517		

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TABLE IV-34

TRAVIS	1968			1969			1970			1971			1972		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
SOUTHWEST TEXAS	1102	13.2	11.5	1249	13.9	11.8	1218	13.6	11.4	1374	15.5	12.4	1363	15.7	11.7
UT-AUSTIN	7210	89.4	69.1	7104	88.8	67.8	7107	79.4	66.4	6618	74.8	59.8	6338	73.1	54.3
HUSTON-TILLOTSI	196	2.2	1.9	157	1.7	1.5	169*	1.9	1.6	182	2.1	1.6	198	2.3	1.7
INCARNATE WORD	6	.1	.1	1	.0	.0	1	.0	.0	6	.1	.1	6	.1	.1
OUR LADY OF LAK	1	.0	.0	10	.1	.1	6	.1	.1	5	.1	.0	9	.1	.1
ST. EDWARDS	188*	2.0	1.7	208*	2.2	1.9	213	2.4	2.0	455	5.1	4.1	508	5.9	4.4
ST. MARY.S	5	.1	.0	7	.1	.1	6	.1	.1	6	.1	.1	32	.4	.3
SOUTHWESTERN UN	33	.4	.3	36	.4	.3	39	.4	.4	49	.6	.4	56	.6	.4
TEXAS LUTHERAN	30	.3	.3	30	.3	.3	30	.3	.3	21	.2	.2	21	.2	.2
TRINITY UNIVERS	43	.5	.4	27	.3	.3	25	.3	.2	21	.2	.2	23	.3	.2
SAN ANTONIO COM	7	.1	.1	5	.1	.0	2	.0	.0	1	.0	.0	7	.1	.1
ST. PHILLIPS	7	.1	.1	9	.1	.1	8	.1	.1	0	0.0	0.0	2	.0	.0
CONCORDIA	61	.7	.6	64	.7	.6	101	1.1	.9	106	1.2	1.0	105	1.2	.9
SCHREINER	5	.1	.0	6	.0	.0	6	.0	.0	6*	.0	.0	6	.0	.0
REGION	8966		86.0	8985		86.7	8929		83.9	8848		79.9	8650		74.3
STATE	1461		14.0	1620		15.3	1766		16.5	2218		20.1	2990		25.7
TOTAL	10427			10605			10695			11050			11640		

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TABLE IV-35

WILLIAMSON	1968			1969			1970			1971			1972		
	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]	[1]	[2]	[3]
SOUTHWEST TEXAS	156	33.0	18.6	159	32.9	18.7	149	28.7	16.5	156	31.0	16.8	128	27.2	14.7
UT-AUSTIN	196	41.4	23.3	204	42.2	24.0	256	49.2	28.4	219	43.5	23.5	208	44.3	23.9
HUSTON-TILLOTSO	5	1.1	.6	5	1.0	.6	4*	.8	.4	3	.6	.3	1	.2	.1
INCARNATE WORD	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.2	.1
OUR LADY OF LAK	1	.2	.1	1	.2	.1	0	0.0	0.0	1	.2	.1	6	1.3	.7
ST. EDWARDS	12*	2.5	1.4	14*	2.9	1.6	10	1.9	1.1	16	3.4	1.9	13	2.8	1.5
ST. MARY,S	0	0.0	0.0	1	.2	.1	0	0.0	0.0	1	.2	.1	1	.2	.1
SOUTHWESTERN UN	87	18.4	10.4	77	15.9	9.1	77	14.8	8.5	87	17.3	9.4	89	18.9	10.2
TEXAS LUTHERAN	9	1.9	1.1	8	1.7	.9	13	2.5	1.4	11	2.2	1.2	14	3.0	1.6
TRINITY UNIVERS	4	.8	.5	3	.6	.4	3	.6	.3	6	1.2	.6	6	1.3	.7
SAN ANTONIO COM	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	1	.2	.1
ST. PHILLIPS	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
CONCORDIA	3	.6	.4	10	2.1	1.2	7	1.3	.8	1	.2	.1	2	.4	.2
SCHREINER	0	0.0	0.0	1	.2	.1	1	.2	.1	1*	.2	.1	0	0.0	0.0
REGION	473		56.3	483		56.8	528		57.6	584		54.2	470		54.0
STATE	367		43.7	367		43.2	382		42.4	426		45.8	401		46.0
TOTAL	840			850			902			930			871		

AN ASTERISK INDICATES THAT ENROLLMENT WAS NOT AVAILABLE AND AN ESTIMATE IS USED

[1]=ENROLLMENT FROM COUNTY IN INSTITUTION

[2]=PERCENT OF COUNTY,S STUDENTS EDUCATED WITHIN THE REGION ATTENDING DESIGNATED INSTITUTION

[3]=PERCENT OF COUNTY,S STUDENTS EDUCATED WITHIN THE STATE ATTENDING DESIGNATED INSTITUTION

TABLE IV-36

WILSON	1968			1969			1970			1971			1972		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
SOUTHWEST TEXAS	55	43.8	22.4	67	41.1	27.8	59	38.1	24.6	59	31.8	23.4	62	36.7	24.3
UT-AUSTIN	15	11.7	6.1	22	13.5	9.1	24	14.3	10.0	27	14.6	10.7	15	8.9	5.9
HUSTON-TILLOTSO	0	0.0	0.0	0	0.0	0.0	0*	0.0	0.0	0	0.0	0.0	0	0.0	0.0
INCARNATE WORD	6	4.7	2.4	7	4.3	2.9	13	7.7	5.4	7	3.8	2.8	8	4.7	3.1
OUR LADY OF LAK	4	3.1	1.6	3	1.8	1.2	7	4.2	2.9	6	3.2	2.4	10	5.9	3.9
ST. EDWARDS	0*	0.0	0.0	1*	.6	.4	0	0.0	0.0	1	.5	.4	2	1.2	.8
ST. MARY,S	8	6.3	3.3	6	3.7	2.5	7	4.2	2.9	6	3.2	2.4	1	.6	.4
SOUTHWESTERN UN	0	0.0	0.0	2	1.2	.8	1	.6	.4	1	.5	.4	1	.6	.4
TEXAS LUTHERAN	10	7.8	4.1	11	6.7	4.6	13	7.7	5.4	18	9.7	7.1	15	8.9	5.9
TRINITY UNIVERS	1	.8	.4	1	.6	.4	3	1.8	1.2	8	4.3	3.2	6	3.6	2.4
SAN ANTONIO COM	25	19.5	10.2	32	19.6	13.3	30	17.9	12.5	40	21.6	15.8	43	25.4	16.9
ST. PHILLIPS	3	2.3	1.2	7	4.3	2.9	8	4.8	3.3	9	4.9	3.6	2	1.2	.8
CONCORDIA	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
SCHREINER	1	.8	.4	4	2.5	1.7	3	1.8	1.2	4*	.9	1.4	4	2.4	1.6
REGION	128		52.8	163		67.6	168		70.8	185		73.5	169		66.3
STATE	118		48.8	78		32.4	72		30.8	67		26.5	86		33.7
TOTAL	246			241			240			252			255		

AN ASTERISK INDICATES THAT ENROLLMENT WAS NOT AVAILABLE AND AN ESTIMATE IS USED

(1)=ENROLLMENT FROM COUNTY IN INSTITUTION

(2)=PERCENT OF COUNTY,S STUDENTS EDUCATED WITHIN THE REGION ATTENDING DESIGNATED INSTITUTION

(3)=PERCENT OF COUNTY,S STUDENTS EDUCATED WITHIN THE STATE ATTENDING DESIGNATED INSTITUTION

CHAPTER V

PROGRAM DEVELOPMENT: A REGIONAL AND INSTITUTIONAL PERSPECTIVE

Useful statewide and regional data presentation and analysis techniques are necessary components of an effective state post-secondary planning effort. The techniques described in Chapters III and IV, for instance, can lead to an improved understanding of student demand for education in Texas by illustrating and explaining state and regional higher education enrollment patterns. Knowledge of such patterns is in turn critical for program and facilities planning at the state level.

It is equally important, however, that state planners comprehend institutional planning processes within post-secondary education, and the ways in which supply/demand factors are considered in these processes. This chapter seeks to clarify these processes by focusing on one specific issue integrally related to physical facilities and campus planning, namely, program development.

OVERVIEW OF PROGRAM DEVELOPMENT

Although the state provides technical assistance and must approve or deny institutional requests to create new state-funded programs, primary responsibility for initiating the program development process is left to the institution. The stimulus for a new program may come from any one of several sources. Often faculty or student interests serve as the catalyst. Alternatively, requests from the community or from specific businesses needing trained employees may set the process in motion.

Program development and design procedures vary among post-secondary education institutions. Some schools (e.g., Texas State Technical Institute) have established a division specifically charged with investigating new program possibilities, designing curricula for new programs, and submitting new program requests to the appropriate state agency. Other institutions delegate these responsibilities on an *ad hoc* basis to those administrators or faculty members most interested in a new program.

If the new program is vocational-technical in nature, the institution is required by federal and state law to establish an occupational advisory committee to assist in the planning and development of the specific program under consideration. The committee, appointed by the president or dean of the institution, is composed of individuals involved in the specific trade or occupation for which the program is designed. The committee assists the institution in determining the need for the program by providing an assessment of the area's training and manpower requirements. The committee also reviews the proposed program curriculum and instructional content, assesses the program's equipment and facility needs, assists in student recruitment and placement, promotes public and legislative support for the training program, aids in obtaining training equipment donations, and assists in program evaluations in order to identify program deficiencies and areas for improvement.

Institutions offering vocational-technical programs are further required to appoint a general advisory committee composed of high-level representatives of the community's major businesses. The function of the general advisory committee is to provide the institution with an assessment of the area's general economic condition, the existing and emerging manpower needs, and the overall appropriateness of the college's occupational programs.

Texas State Technical Institute (TSTI) employs a third type of advisory committee, namely, the school-industry cooperative committee. Unlike the community college, created to serve a specified community, TSTI was established to provide training programs to meet statewide manpower needs. In order to ensure the identification of these statewide training needs, TEA has mandated the establishment of school-industry cooperative committees composed of industrial representatives from across the state. Each such committee is organized to advise TSTI in the development of a specific occupational program as well as to promote cooperation between TSTI and the associated industrial community. Its functions are similar to those of the occupational advisory committee and include placement assistance, public relations, obtaining training equipment donations, identification of training needs, and evaluation.

In contrast to vocational programs, academic programs are not required to employ an advisory committee in the program development process.

Once a new program has been designed, it is reviewed by the appropriate administrative officials within the college or university. If the institution desires any state financial

support for the new program and has received the approval of the institution's governing board, it must then submit the program to the appropriate state agency for review and approval.

Academic programs are submitted for review to the Coordinating Board. Approval of the Coordinating Board is statutorily required before a new degree program can be initiated at the senior college level.

The Coordinating Board also exercises control over the academic courses offered by the state's public two-year colleges, requiring that all general academic courses offered in these colleges be university-parallel courses.

State review of vocational education policies and programs is complicated by the overlapping responsibilities of the State Board of Education (and TEA) and the Coordinating Board, Texas College and University System. TEA is responsible for directing the state's activities in vocational-technical education at the secondary and post-secondary level as a result of the Texas Technical-Vocational Act of 1969. The Coordinating Board's concern stems from its legislative mandate to provide ". . .leadership and coordination for the Texas higher education system. . ." (Texas Education Code 1972: Section 61.002). The Joint Committee, consisting of three representatives each from the Coordinating Board, the State Board of Education, and the Advisory Council for Technical-Vocational Education, meets regularly to coordinate the joint policy concerns of the boards.

Requests for new vocational-technical programs are initially submitted to TEA and then reviewed by the Joint Program Review Committee. Based on the Committee's recommendations the Associate Commissioner for Occupational Education and Technology, TEA, either approves the program, denies it, or returns it to the institution for improvement or modification. If the program is approved, the institution may begin its implementation. If, however, an institution's program request is denied, the institution must either abandon the proposed program or appeal the decision in a rehearing. A program which has been returned to the institution for a modification may be resubmitted for state review once the identified problems have been corrected.

Successful program planning at the institutional level thus requires information that is both available and applicable. This may be data demonstrating student interest in the program, advice concerning curriculum development, and/or job availability projections. This chapter analyzes the extent to which supply/demand factors are employed in program development by selected Texas institutions of post-secondary education.

Given the magnitude of the post-secondary education "system" in Texas, as well as the time and staff limitations of the project, an examination of the program development processes in each institution within the state was impossible, and project participants decided to focus on a single sub-state region.

The Austin-San Antonio area was again selected as the region of study; included were the counties constituting the Capitol Area State Planning Region (CASPR) and the Alamo Area State Planning Region (AASPR). Although lying outside this region, the James Connally Campus of Texas State Technical Institute (TSTI) in Waco was also included. This inclusion was based upon TSTI's expanding role in the state's post-secondary educational system and the relative proximity of Waco to the selected region.

Within the selected region two studies were undertaken to examine institutional policies related to the consideration of supply/demand factors in program development. To provide an overview of the interaction among educational institutions, a regional survey was developed and disseminated. In addition, detailed analyses of program development within eight diverse institutions in the region provided a perspective on intra-institutional policies and procedures. These studies are described in the next two sections.

REGIONAL POST-SECONDARY EDUCATION SURVEY

Effective state post-secondary education planning is dependent upon communication and the flow of information between all concerned sectors. Thus a survey was designed by project participants to disclose both the degree of inter-institutional interaction and the extent of interaction between post-secondary education institutions and various organizations in the post-secondary arena, e.g., the Coordinating Board and its staff. This approach was taken in an attempt to relate the institutional program development process with state/regional planning concerns. LBJ School project participants felt that the information generated by such a survey could provide a broader overview of the case study institutions, as well as provide helpful information concerning institutions not selected for more detailed analysis.

The regional post-secondary education survey was mailed to top administrators in all 42 post-secondary education institutions, proprietary schools as well as public and private colleges and universities, in CASPR and AASPR. Two questions were posed. The first question requested the respondent to indicate which of the following types of interaction occur between the respondent's institution and each of the other post-secondary education institutions in the region:

- academic program planning;
- vocational-technical program planning;
- education committees (e.g., joint institution, regional, state);
- education conferences; and
- informal interaction among administrators (e.g., telephone/mail correspondence).

The second survey question asked the respondent to identify which of the following types of interaction occur between the respondent's institution and each of 14 organizations and government agencies:

- informational;
- advisory;
- regulatory;
- member;
- budgetary; and
- lobby.

The quality of the responses to these two questions varied significantly among the 42 surveyed institutions. For example, the San Antonio College responses represent the collective judgments of approximately 20 administrators, deans, and department chairpersons. This broad involvement appeared to be the exception rather than the rule, however.

The response rate for public and private colleges and universities was excellent, with 13 of 16 institutions returning completed surveys. Proprietary school responses were less complete, with 9 of 26 institutions in the region responding. Although the nine responding proprietary schools may not be representative of the region's proprietary schools, the response rate is reasonable for a mail survey. (The average response rate in such surveys is only about 15 percent.)

Question 1 Responses

These results, summarized in Appendix C, clearly indicate a lack of program planning interaction between (a) the public and private colleges and universities in the region and (b) the proprietary institutions within the region. This was noted by the respondents in each educational sector. For instance, only 4 of the 13 responding colleges and universities indicated any interaction with any proprietary school in the region, and in only two of the four cases did the interaction consist of anything other than informal contact. Conversely, none of the responding proprietary schools indicated interaction of any of the first three types with any college or university in the region.

One might expect such non-communication between the proprietary schools and the public and private four-year institutions, given their different program orientations. More surprising was the limited interaction between proprietary schools and the two-year colleges. Although San Antonio College does appear to maintain close contact with proprietary schools in San Antonio, only one responding proprietary school in the region noted interaction with a two-year college.

In contrast, the responding public and private colleges and universities in CASPR and AASPR indicated extensive informal contact with other institutions of this type, as well as substantial interaction with respect to academic program planning, education conference participation, and education committee involvement. Understandably, little joint activity related to vocational-technical program planning occurred within this institutional sector.

Responses to this first question also imply substantial interaction between proprietary schools. For instance, eight of the nine responding schools noted they had informal program planning interaction with other proprietary schools in the selected region. Seven of the nine indicated interaction of this sort in the context of education conferences. Surprisingly, however, *none* of the responding proprietary schools indicated interaction with other proprietary schools in the region with regard to vocational-technical program planning.

Question 2 Responses

The responses to the second question (see Appendix C) are not as easily categorized and interpreted, due to the multiplicity of post-secondary education organizations and government agencies in CASPR and AASPR. Nevertheless, the primary type of interaction occurring between responding educational institutions and these organizations and agencies is clearly information exchange. The survey responses further indicated that, with the exception of the proprietary school/Texas Education Agency certification procedures, other types of contact between these government units and proprietary schools in the region are minimal.

Conclusions

The interaction categories used in the two survey questions were neither entirely definitive nor unambiguous. Neither was there a 100 percent institutional response. Nevertheless, some generalizations based upon the responses appear to be appropriate.

1. Substantial institutional interaction occurs within the public and private collegiate sector, as well as within the proprietary school sector, in CASPR and AASPR. However, interaction among the proprietary schools with regard to vocational-technical program planning does appear to be virtually non-existent.

2. Little interaction occurs between the more traditionally academic colleges and universities and the proprietary schools in the region. Less expected, however, is the lack of interactive vocational-technical program planning between proprietary schools and the public and private two-year colleges. With substantial emphasis now being placed on occupationally oriented education, this

non-interaction could possibly result in excessive program duplication.

3. The survey does not describe the impact of inter-institutional program planning interaction on intra-institutional planning processes. For instance, survey responses indicated that 11 of the 13 responding colleges and universities interacted with similar institutions in the region on academic program planning matters. Whether this is a public relations activity or actually influences internal planning is unclear, however. (The eight institutional analyses in the next section focus on this issue.)

4. The proprietary school sector in CASPR-AASPR is relatively autonomous. The only organizations/agencies with which more than two of the responding proprietary schools indicated any type of interaction were the Texas Education Agency (TEA), the Texas Employment Commission (TEC), the Proprietary School Advisory Commission (PSAC), and the Texas Association of Proprietary Schools (TAPS).

5. The value of the survey results more from its overview of institutional interactions than from its specification of the impact such interactions actually have on institutional program planning and development. Nevertheless, this overview does reveal those organizations and agencies with which institutions wish to (or must) interact. This in turn informs state education planners of the environment in which institutions pursue their program development policies.

INSTITUTIONAL PROGRAM DEVELOPMENT ANALYSES

Within the Austin-San Antonio region (i.e., CASPR and AASPR) are more than 40 diverse post-secondary education institutions. Seven representative institutions were chosen for in-depth analyses of institutional policies with regard to the consideration of supply/demand factors in program development. Included were a public senior college–Southwest Texas State University (San Marcos); a private senior college–St. Mary's University (San Antonio); three public two-year colleges–Austin Community College (Austin), San Antonio College (San Antonio), and St. Phillip's College (San Antonio); and two proprietary schools–Durham's Business College (Austin) and Parish Draughon's Business College and Technical Institute (San Antonio). Included as the eighth institution in this analysis was the James Connally Campus of the Texas State Technical Institute (TSTI) in Waco. Although TSTI is located outside the selected region, the importance of the state technical institute concept led to its inclusion and comparison with other post-secondary education institutions.

Established by the voters of Austin in December 1972, *Austin Community College* began classes in the fall of 1973. Approximately 50 percent of the college's programs are academically oriented and 50 percent occupationally oriented.

San Antonio College (SAC), operated together with *St. Phillip's College* under the jurisdiction of the San Antonio Union Junior College District, was opened in 1925 as The University [of Texas] Junior College. SAC became a part of the San Antonio Public School System in 1930, and adopted its present name in 1948. It provides both transfer and occupational programs, but emphasizes traditional academic areas and student transfers into four-year colleges and universities. St. Phillip's, on the other hand, focuses much of its attention on students who do not plan to continue education beyond two years. Originally founded in 1898 as a private Episcopalian institution, it opened its doors in 1927 as a junior college serving the black community of San Antonio and vicinity. St. Phillip's, whose association with SAC began in 1942, now emphasizes vocational-technical training and academic programs of a technical nature.

St. Mary's University is a private coeducational institution owned and operated by the Society of Mary (Roman Catholic Church). First offering instruction in 1852, the university currently offers undergraduate degrees in the School of Arts and Sciences and the School of Business Administration. Advanced degrees are offered in law, education, arts and sciences, and business administration.

Chartered as Southwest Texas State Normal School in 1899, *Southwest Texas State University* is a coeducational state liberal arts institution offering a range of academic programs at both the undergraduate and graduate levels. The institution has a regional focus, and seeks to appeal to student needs unanswered by other CASPR-AASPR post-secondary education institutions.

Durham's Business College, Austin, was organized in 1936. Its Business School Division and Technical School Division offer (according to the 1973-74 catalog) 10 different course offerings, with completion time per offering ranging from 910 hours to 1,720 hours. The college's approximately 300 students are primarily from Austin and its immediate vicinity.

Farish Draughon's Business College and Technical Institute, San Antonio, has been in continuous operation since 1888. The focus of the institute is on job placement, and thus its program has a strong business and industrial orientation. Its more than 500 students are enrolled in 20 different business and technical programs.

The focus of the *Texas State Technical Institute* (TSTI) has been on producing individuals for immediate entry into the Texas labor market. Created in 1965 by the Texas Legislature as a division of Texas A&M University, it began classes on the Waco campus in January 1966. A separate governing board was established for the institute in 1969. Over 2,000 students are currently enrolled at the James Connally Campus in more than 55 degree and certificate

programs. The institute's responsibilities are to train both students and teachers in highly technical and vocational program areas, as well as to conduct manpower development and utilization research programs to identify training and retraining needs in Texas.

Procedures Within Institutions for Program Development

One aspect of program development examined in these eight institutions was the level at which program development takes place.

In Southwest Texas State University, St. Mary's University, and the three selected two-year colleges, program development generally occurs at the departmental level. Department faculty at these schools are responsible for identifying the need for new programs and for developing course materials. At Southwest Texas, for instance, the development of the allied health professions program originated from a suggestion by a Biology Department faculty member, who also researched the need for this program without benefit of institutional support funds. At Austin Community College, the Dean of Occupational Education and Technology designates a program leader in each department to whom is given the responsibility for developing new programs. After work is completed at the department level in these schools, the program proposals must be cleared by various faculty and administrative units, and finally approved by the president and governing board.

At both San Antonio College and St. Phillip's College, community groups do have an impact on the program development process. Suggestions are always channeled to the appropriate collegiate departments for review and development. No formal procedures exist to solicit program ideas from the community; this is achieved through informal faculty and administrative contacts.

In the two selected proprietary schools, no formal procedures exist for program development. At Parish Draughon's, for instance, informal contacts of the school's staff with business and industry representatives, community groups, and other schools are used to modify existing programs. New program ideas are usually suggested by the school's director, on the basis of his business and educational contacts. Program development within both proprietary schools occurs primarily at the discretion of the administrative heads of the two institutions.

TSTI differs from the examined four-year and two-year institutions in that its program development process is primarily based in a central administrative office established specifically for that purpose. All program requests, most of which flow from the state's business and industrial community, are channeled into the office of TSTI's Manager of Curriculum and Facilities. This manager requests the school's Department of Occupational and Educational Research to perform a preliminary investigation of the need for each proposed program. The manager's recommendation for further program development (or for rejection) then is forwarded to the General Manager for Instruction. Existing departments become involved in the process only when a proposed new program relates to existing ones.

Clearly the most prevalent program development practice in these selected institutions is to delegate this responsibility to whichever faculty member or administrator expresses the most interest in the new program. As a consequence, the task is often performed by individuals familiar with the program area but unfamiliar with sources of and methods for developing supply/demand information. This problem is further compounded by the time-consuming nature of such activities.

It might be useful for each post-secondary education institution to have a single office or position responsible for investigating new program requests, reviewing relevant supply/demand factors, evaluating existing programs, and functioning as a liaison between the institution and the state's education agencies on program development matters. The following sections describe how significant supply/demand considerations are currently used in this process.

Institutional Interaction in Program Development

In examining institutional program development policies, the project participants sought to determine the extent to which post-secondary education institutions communicate with other such institutions in the process of developing programs. To what extent, for instance, do schools take into account the existing supply of similar post-secondary programs in that geographic area?

The Regional Post-Secondary Education Survey responses, as noted above, indicated that institutional administrators in the CASPR and AASPR generally believed they maintained considerable contact with other institutional representatives on program development matters. The eight institutional analyses reveal, however, that effective interaction among these selected institutions is limited. This can be seen more clearly by noting current practices within these eight schools.

An important (and implicit) consideration in the program development activities of Southwest Texas State University has been its geographic location between The University of Texas at Austin and the several San Antonio institutions. In developing its allied health program, for instance, Southwest Texas concentrated on providing a program not provided elsewhere in the area. It consulted with area two-year colleges to determine if the latter's graduates might enroll in the program. Special contacts in

this case were also made with St. Phillip's College (San Antonio), El Centro College (Dallas), and Tyler Junior College, for these schools had experience in operating related programs. This development work was all done by one professor, however, and its success depended solely upon his ability to perceive the steps that needed to be taken. Lacking, for example, were analytic techniques that provided a clear indication of institutional and program service areas as an aid in making program development decisions.

St. Mary's University is a member of an institutional consortium called United Colleges of San Antonio. As a result, it must consider the program offerings of Our Lady of the Lake, Oblate, and Incarnate Word Colleges in developing its programs. This appears to be the extent of its serious contacts with other schools, although the development of The University of Texas at San Antonio may result in future interaction with this institution.

Most schools review other institutions' programs to prevent duplication. St. Phillip's College and San Antonio College, on the other hand, look to other schools to see what programs they should be offering. There is no apparent hesitation about duplicating programs offered in other institutions. In fact, these two colleges often duplicate each other's program, even though the San Antonio Union Junior College District governs both schools. This district also maintains a liaison committee with The University of Texas at San Antonio to insure transferability of student credits, particularly for the district's large number of Mexican-American students.

The two selected proprietary schools are primarily concerned about program development at other proprietary schools, although Durham's Business College (Austin) does stay informed about Austin Community College program offerings. Parish Draughon's stays informed about other institutions' programs through the Texas Association of Proprietary Schools.

A significant lack of contact was observed between TSTI and public two-year colleges. TSTI officials claim that these colleges have differing educational philosophies, and blames them for the limited communication. By law, TSTI must receive the approval of these two-year colleges when offering special off-campus instructional programs in their districts. In its program development process, TSTI specifically identifies those educational institutions, in and out of Texas, public and private, which offer training in proposed new areas. However, the assumption among TSTI officials is that even if many schools offer the program, there must still be a need for more training if industry is requesting it. These officials believe that industry does not try to overproduce trained manpower, since those businesses will ultimately be requested by TSTI to assist in placing graduates in jobs. TSTI officials say there is no way for them to know if industry goes to several schools requesting the same programs, or if other schools are developing similar programs simultaneously.

Impact of Student Demand on Program Development

Of particular interest in these eight institutional analyses was the manner in which student demand for educational programs has been incorporated into the program development process.

In the case of the allied health program at Southwest Texas State University, demonstration of student interest in the proposed program was clearly a major concern of the faculty member developing the proposal. The professor's initial interest in the program was directly sparked by the fact that students at Southwest Texas were enrolling in pre-professional health courses, but were unable to complete work for a health degree. They had to transfer to finish their training. To support his proposal, the professor visited hospitals in Dallas, Houston, and the Austin-San Antonio region to determine if their personnel would take advantage of the training program to obtain licenses. He also consulted allied health educators in the state to see if they would be interested in enrolling in such a program. No attempt was made to quantify the number of students likely to enter the program in the future, however. It was simply a case of getting a "feel" for potential student interest. In giving his approval of the program, the Dean of the College of Professional Schools Southwest Texas State University, also showed a desire to respond to student interests—but for different reasons. With academic enrollments dropping, he realized it was essential to initiate high demand programs to maintain state funding levels. He realized as well that high demand programs were now essentially job-oriented programs, especially at Southwest Texas, given its large number of older-than-average students.

At St. Mary's University, San Antonio College (SAC), and St. Phillip's College, student interest in new programs is conveyed primarily through informal faculty-student contacts. At St. Phillip's, for instance, students can petition the school to institute new courses or programs. To plan for the future, St. Phillip's counselors recruiting in local high schools do try to obtain information on student interests. However, no formal survey instrument is used for this purpose, nor are formal estimates of potential program enrollments made. At SAC, students will occasionally be asked to sign statements indicating their interests in proposed programs. But here again no enrollment projections are made to estimate future demand. SAC officials at times also look at other schools to see if their programs are attracting sufficient students before instituting a new program.

Austin Community College (ACC) has used the results of a study done by the Austin Independent School District, which dealt with student/parent career interests, to ascertain information on student demand. According to ACC officials, however, student demand has been a minimal factor in the college's program development process.

The proprietary schools studied do not attempt to develop estimates of potential enrollment in programs, i.e., of student demand. Information on students is collected, but it is neither aggregated nor used in the program development process.

The most sophisticated approach to predicting student demand has been implemented by Texas State Technical Institute (TSTI). In addition to contacts with Veterans' Administration offices and other TSTI campuses, the James Connally Campus in Waco relies extensively on "The High School Career Interest and Information Survey" to predict potential program enrollments. This career interest survey, designed by TSTI's senior vice president, has been funded by TSTI and the Texas Education Agency (TEA). The survey was administered on a pilot project basis in different parts of the state between 1970 and 1973, eventually reaching some 60,000 Texas high school students. The survey has been endorsed by TEA's 20 Regional Education Service Centers, which have recommended its annual administration in the state's high schools. Financial constraints have prevented TEA from following up on this proposal. Thus the data from the original surveys are rapidly becoming obsolete and less valuable for planning. TSTI, however, continues to administer the survey in high schools which it considers its "feeder schools."

In estimating potential enrollment for a program from the surveys, TSTI planners examine the interest responses of the survey population for particular employment categories, as well as for related job categories. A projection is then made of the potential enrollment in the program based upon industry cluster responses.

Impact of Employer Demand on Program Development

Substantial differences exist among the eight selected institutions with regard to the manner in which employer demand impacts the program development and planning process. In some cases, industrial and business employers were directly involved through advisory committees and the like; in other situations, informal contacts between the school and employers were predominant; and yet another approach was to rely upon manpower projections published in trade and technical publications.

The development of the Southwest Texas allied health program included a consideration of potential employe demand for its graduates. The professor developing the program traveled to schools, hospitals, and professional associations to determine if manpower in this field was needed in Texas. He also used information from national publications discussing the shortage of allied health professionals. The Dean of the College of Professional Schools supported the program idea in part because he believed that new federal legislation requiring increased licensing of certain health professionals would provide a market for graduates. He also believed that hospitals in the state needed additional trained personnel in this area. One Corpus Christi hospital had even contacted the school requesting such a program. However, as in the case of student demand, no attempt was made to quantify actual and future demand for the program among employers. In addition, while the employers were consulted to ascertain their employment needs, health professionals were not formally involved in the program-development process itself through the use of employer advisory committees. This is consistent with our finding that the development of academic programs, in both the four-year and the two-year colleges, does not generally involve the use of committees and is thus less likely to include concerns about manpower issues in the planning process.

Three of the examined schools St. Phillip's College, Austin Community College, and TSTI do use manpower studies in the development of new programs. At St. Phillip's College, after a new program is suggested, the director of occupational education (or his staff) will contact the Texas Employment Commission (TEC) to see if a study has been done in that occupational area within the past six months. St. Phillip's will also have its staff conduct phone or door-to-door surveys of local industries to obtain estimates of industry manpower requirements.

At Austin Community College, the office of occupational education and technology attempts to assess employer demand for existing or proposed new programs through its own surveys. This is not done, however, on a systematic basis.

TSTI provides the most thorough institutional mechanism for developing manpower data to support new program proposals. This stems directly from TSTI's legislative mandate, which was to provide programs to meet *state* manpower needs. It also results from the TSTI mandate to do research on future vocational-technical education needs of the state. Due to staff and financial limits, TSTI's Department of Occupational and Educational Research has never been able to fully carry out this latter part of the mandate; instead, it has concentrated on providing support for program development activities on the Connally Campus.

When a new program is suggested at TSTI, the Department of Occupational and Educational Research surveys a variety of sources to assess manpower needs at that time and five years hence. Consulted sources include TEC studies, U.S. Department of Labor and U.S. Department of

Commerce reports, labor union publications, professional journals, occasional council of government studies of manpower needs, Chamber of Commerce reports, and special labor market analyses done by groups like the Texas Industrial Development Group at Texas A&M University. TSTI also conducts its own phone surveys of representative employers around the state to get their estimates of manpower requirements. It is significant that TSTI concentrates on assessing statewide need, while the junior colleges seek to identify more localized needs.

While all public vocational-technical programs in Texas are required to have industry program advisory committees, these same three institutions—St. Phillip's College, ACC, and TSTI—go beyond this formal requirement and actually involve potential employers in the planning process. Assistance is sought in assessing need for the new programs and in developing the courses for them, as well as in updating and evaluating existing programs.

In contrast to this, the two selected proprietary schools maintained no formal mechanisms for industry input into program development or program operation. In developing a program, the directors of Durham's Business College will contact certain industry people on an *ad hoc* basis. They believe the school staff is sensitive to industry needs and will respond quickly to changes in the economy. The director of Parish Draughon's said the school staff keeps up with current information on manpower needs through trade publications and government documents, but that these are not used in program development. The school is not concerned about improving its use of supply/demand data in program development; it believes that its informal system is working well and that the costs associated with more extensive data collection and analysis would be too high.

Impact of Program Evaluation on Program Development

The institutional program development process does not terminate with the implementation of the program. Rather, through the continuing input of students, employers, and faculty/administrators, the process of program evaluation continues during the program's existence.

The project's eight institutional analyses reveal that vocational-technical programs are evaluated much more frequently than are academic programs. This is largely due to the fact that it is relatively easier to measure the achievement of program objectives for vocational-technical programs than it is for academic programs.

The fundamental objective of a vocational-technical program is to train individuals for employment. The measure of success of a vocational-technical program is often judged by the number of students who secure training-related jobs upon completion of the program. In addition to placement data, a program may be evaluated on the basis of surveys of employer satisfaction with the program's graduates and student assessments of the program's merit.

Program evaluation of academic programs is complicated by the fact that preparation for employment is often only one of several program objectives. The variety of scales upon which an academic program must be measured does not invalidate the use of placement data but rather suggests the need to employ a wide variety of evaluation techniques.

At the present time no systematic placement data are collected for academic programs in CASPR and AASPR. Public institutions are required to collect such data for state-funded and federally-funded vocational-technical education programs. But these data are frequently gathered only to satisfy reporting requirements and are seldom used in the program development process.

Concerning other methods of program evaluation, Parish Draughon's and TSTI indicated they are beginning to systematically solicit employer evaluations of their graduates in an effort to improve their programs. Whether or not this information will be used by the institutions remains an unanswered question.

Conclusions

Post-secondary education at the institutional level, as at the state level, benefits from knowledge about the impact of supply/demand factors (e.g., student demands, employer needs, program offerings of other institutions) on the planning process. This chapter has focused on an important aspect of this planning process, namely, program development, to seek to clarify institutional policies and practices.

Through an overview survey of all post-secondary education institutions in the Austin-San Antonio region (i.e., CASPR and AASPR) and in-depth institutional analyses of eight institutions, project participants were able to develop insight into the current institutional processes and a better appreciation of their deficiencies. Conclusions based upon these observations follow.

1. Substantial informal institutional interactions occur within the public and private collegiate sector in the selected region. The significance of this interaction is difficult to evaluate, however. Cooperative planning within the proprietary school sector in CASPR and AASPR is less common. Furthermore, interaction between these two sectors is virtually non-existent between the proprietary schools and the public two-year vocationally-oriented colleges. While efficiency is *not* always a desirable educational goal, it would appear that institutions must more effectively incorporate other institutions' planning decisions into their own planning processes.

2. It might be useful for each post-secondary education institution to designate specific responsibility (to an office or individual) for investigating the desirability and feasibility of new and existing programs in light of various student

employer, and institutional supply/demand considerations. This designee could also function as a liaison between the institution and the state agencies concerned with institutional planning activities.

3. In an effort to facilitate institutional-state agency interaction and to develop improved lines of communication within sub-state regions, an appropriate set of sub-state regions (e.g., the 24 state planning regions, which include CASPR and AASPR) might assume a more active role as clearing houses and disseminators of information.

4. More effective student follow-up and placement procedures need to be developed; further information on what happens to dropouts is also needed. This type of information is particularly useful in planning vocational-technical programs and institutional policies. All public colleges and universities might be required to maintain such information on all former students; it might also be submitted, for example, with appropriations requests.

5. Given the thrust of recent federal legislation (e.g., the 1973 Comprehensive Employment and Training Act) and the increased emphasis on occupation-related education, it is critical that vocational-technical programs be responsive to employer, community, and student concerns and needs. The advisory committee structure has been established to provide such input into the planning process. However, the project's analyses support the concern of the Texas Advisory Council for Technical-Vocational Education (1974) that these committees are often ineffective in serving this function, and the guidelines for their establishment and operation should be reviewed. The feasibility of establishing similar advisory committees for academic programs might also be examined, as well as the relative advantages and disadvantages of regional or statewide, rather than institution-focused, advisory councils.

The administration of a brief high school career interest survey, either on a sample or a complete survey basis, might also be useful for institutional and state-level planning, as well as for later follow-up analyses. (The State of Minnesota, for example, receives this and a variety of other information from all high school juniors and uses it extensively in student follow-up and in planning analyses.)

CHAPTER VI

AREAS FOR FURTHER INVESTIGATION

The analytic approaches described in this report should contribute to a more effective state and institutional post-secondary education planning effort. By no means, however, have all issues and problems been resolved.

A summary listing of areas requiring further investigation is complicated by their overlapping nature. Nevertheless, it is helpful to classify them under three headings: (1) vocational-technical sector; (2) academic (collegiate) sector; and (3) authority of and coordination between state post-secondary education agencies.

VOCATIONAL-TECHNICAL SECTOR

Supply and Demand

Further analyses to assess both the need for various types of post-secondary vocational-technical education and the ability of the state and/or local community to accommodate existing and future demand are required. For example:

- To what extent have institutional service areas been delineated and used in planning for and providing vocational-technical education?
- How have the planning and program responsibilities (with respect to the Comprehensive Employment and Training Act) of local manpower planners in Texas been incorporated into discussions of supply and demand?
- To what extent is vocational-technical education in proprietary schools and in public post-secondary institutions meeting the needs of Texas students and employers? How can this best be assessed?

Data Resources

A more systematic review of information sources, availability, utility, and levels of aggregation would be helpful. For example:

- What information is available on the degree to which, and the effectiveness with which, different socio-economic groups are being served by the state's public and private vocational-technical programs?
- What role should the Texas Employment Commission, the Advisory Council on Technical-Vocational Education, the Governor's Advisory Committee on Post-secondary Education Planning, and other state agencies assume in the generation and/or collection of vocational-technical education and manpower/labor information?

Funding

There is a need to assess the adequacy of funding for post-secondary vocational-technical education in Texas and to describe how the funds—federal, state, local, and private—are being expended.

- How much state-appropriated money supports post-secondary vocational-technical schools and programs? Who receives it? For what purposes is it spent?
- How might decreases or shifts in federal support (e.g., resulting from federal vocational education legislation in 1975) affect state vocational-technical education?
- In what ways do federal funds and associated reporting requirements influence state vocational-technical education policies and programs?

Planning and Coordination

Existing policies and procedures in the planning, administration, and intrasector coordination of vocational-technical education should be clarified and, if necessary, reexamined. For instance:

- What formal and informal planning processes exist within the Texas Education Agency (TEA)?
- How does TEA assess the need for post-secondary vocational-technical programs, and how are priorities established?
- How are post-secondary vocational-technical institutions (public and proprietary) encouraged to share and coordinate programs and facilities? Is unnecessary duplication of programs and facilities being avoided?
- To some extent, local advisory councils assess needs and plan programs. To whom are they accountable? In what ways do they interact with the state education agencies?

- What kinds of coordination exist between secondary schools and post-secondary schools with regard to vocational-technical education planning?

Evaluation

This addresses the possible need to establish better criteria for program development and evaluation. For example:

- How effective are current vocational-technical programs in meeting state goals and student needs? How is effectiveness measured? Is available data sufficient?
- How flexible are post-secondary vocational-technical programs to changing occupational needs in the state? How is flexibility maintained?
- How much program evaluation should be undertaken by the Advisory Council for Technical-Vocational Education? Does the Council have sufficient authority and resources to perform these tasks effectively?

ACADEMIC (COLLEGIATE) SECTOR

Supply and Demand

Required here are further analyses to assess the potential demand for "traditional" academic education and the capability of colleges and universities to adjust to changes in this demand. For instance:

- To what degree should academic education be focused on supplying the needs of the "market place"?
- What has been the rate of employability for Texas college graduates? What proportion remains in the state? What proportion are employed in positions related to their educational training?
- What shifts have occurred in the characteristics of the college and college-age populations in Texas? Is there a trend toward more part-time students?

Funding

Public funding of independent post-secondary education institutions (and their students) has long been a matter of controversy. Questions regarding the coordination of public funds appropriated for public colleges are also continuing to surface.

- Should the Coordinating Board and its staff and/or the state's new 1202 Commission more actively coordinate state appropriations for public colleges and universities?
- Should independent collegiate institutions in Texas receive greater state support? If so, would greater state supervision of these schools be appropriate?
- What impact will recent and potential changes in federal education assistance have on Texas colleges and universities?

Planning and Coordination

Existing policies and procedures related to the planning and intrasector coordination of academic education should be identified and, if necessary, reexamined. For example:

- How might independent colleges and universities in Texas be more effectively included in state planning?
- What criteria guide the establishment and/or expansion of public colleges and universities?
- How might the Coordinating Board and its staff more effectively influence state higher education planning, given the present relative autonomy of institutional systems?

Evaluation

This is no less important than the evaluation of vocation-technical education, with similar questions emerging. For example:

- Is existing data adequately used to evaluate the effectiveness of collegiate programs? How is it used? How is effectiveness measured?
- Is the Coordinating Board staff equipped to effectively perform its program evaluation role? Should its resources and/or responsibilities be expanded?

AUTHORITY OF AND COORDINATION BETWEEN STATE POST-SECONDARY EDUCATION AGENCIES

Planning and Coordination

Included among the issues facing the Coordinating Board and other "agencies" are:

- How do the Coordinating Board staff, the Texas Education Agency, the staff of the 1202 Commission, and representatives of other involved state organizations initiate and structure their post-secondary education planning activities? What are their respective planning objectives? Are they being realized? What types of interagency coordination are attempted? What occurs?
- How effectively has the Joint Committee operated? Have its objectives been realized?
- What are the advantages and disadvantages of a more centralized post-secondary education planning and coordination structure in Texas?

Proprietary Schools

This issue area encompasses TEA certification of Texas proprietary schools and the possible future role of the state's 1202 Commission. For example:

- Are present certification and monitoring procedures appropriate? Should state involvement in program development and admissions policies be expanded? Does TEA currently have sufficient authority to require proprietary schools to submit the student and

program data necessary for effective statewide post-secondary education coordination?

- What roles should the Coordinating Board and the state's 1202 Commission assume relative to the proprietary school sector?

Community Colleges

This is basically a coordination issue, since both the Coordinating Board and the State Board of Education/TEA exercise partial jurisdiction over this sector. For example:

- Should all data and other information on community colleges and proprietary schools be collected and stored in a single location, then made accessible to both these state agencies? If so, who should have the responsibility for storage? Who would control the access to the information?
- What might be the responsibilities of the 1202 Commission with regard to community college planning?

BIBLIOGRAPHY

Advisory Council for Technical-Vocational Education (1973) *Fourth Annual Report*, Austin (November).

_____(1974) *Fifth Annual Report* (draft), Austin (September).

AULT, David E. and Thomas E. JOHNSON, Jr. (1973) "Probabilistic Models Appplied to Hospital Planning," *Growth and Change: A Journal of Regional Development*, vol. 4, no. 2 (April) 7-13.

BLALOCK, Hubert M., Jr. (1972) *Social Statistics*, Second Edition, New York: McGraw-Hill Book Company.

BRADSHAW, B.S. and POSTON, D.L. (1971) "Texas Population in 1970–1. Trends, 1950-1970," *Texas Business Review*, vol. xlv, no. 5 (May).

Carnegie Commission on Higher Education (1973) *Priorities for Action: Final Report of the Carnegie Commission on Higher Education*, New York: McGraw-Hill Book Company.

Chronicle of Higher Education, The (1974) "Education Office Decides to Push '1202' Panels" (March 11).

Coordinating Board, Texas College and University System (1968a) *Policy Paper No. 2* (state plan for junior college development to 1985), Austin.

_____(1968b) *Policy Paper No. 3* (procedures for creating public junior colleges), Austin (April).

_____(1970) *Guidelines, Procedures, and Criteria Relating to Requirements for Administrative Changes and New Degree Programs*, Austin (November).

_____(1971) Memorandum describing the work activities of the Coordinating Board staff (December).

_____(1973a) "A Statement of the Coordinating Board's Responsibility and Authority in Vocational-Technical Education." Prepared at the request of the House Education Committee, Texas State Legislature (November 1).

_____(1973b) "Institutions of Higher Education in Texas, 1972-73" (December).

DRAPER, N.R. and H. SMITH (1966) *Applied Regression Analysis*, New York: John Wiley and Sons, Inc.

GLENNY, Lyman (1973) "Pressures on Higher Education," *ACPRA College and University Journal*, vol. 12, no. 4 (September).

HAINES, George H., Jr., Leonard S. SIMON, and Marcus ALEXIS (1972a) "An Analysis of Central City Neighborhood Food Trading Areas," *Journal of Regional Science*, vol. 12, no. 1: 95-105.

_____(1972b) "Maximum Likelihood Estimation of Central City Food Trading Areas," *Journal of Marketing Research*, vol. ix (May) 154-159.

HAMBURG, Morris (1970) *Statistical Analysis for Decision Making*, New York: Harcourt, Brace and World, Inc.

HUFF, David L. (1973) "The Delineation of a National System of Planning Regions on the Basis of Urban Spheres of Influence," *Regional Studies*, vol. 7: 323-329.

HUFF, David L. and L. BLUE (1966) *A Programmed Solution for Estimating Retail Sales Potentials*, Lawrence: Center for Regional Studies, University of Kansas.

LUCE, R. Duncan (1959) *Individual Choice Behavior*, New York: John Wiley and Sons, Inc.

Lyndon B. Johnson School of Public Affairs (1972) *Guide to Texas State Agencies*, Fourth Edition, Austin: The University of Texas at Austin.

_____(1974a) *Post-secondary Education in Texas: Organization and Issues*, Phase I Report, Austin: The University of Texas at Austin (February).

_____(1974b) *Texas Atlas of Higher Education*, Austin: The University of Texas at Austin (August).

_____(1974c) *MAPPER Users Manual*, Austin: The University of Texas at Austin (November).

National Commission on the Financing of Post-Secondary Education (NCFPE) (1973) *Financing Post-Secondary Education in the United States*, Washington, D.C.: U.S. Government Printing Office.

NIE, Norman H., Dale H. BENT, and Hadlai HULL (1970) *Statistical Package for the Social Sciences*, New York: McGraw-Hill Book Co.

POSTON, Dudley L., Jr., James GRUNDLACH, and Dennis CONWAY (1973) *Projections of the College-Age Population of Texas Counties Through 1985*, Austin: Population Research Center, The University of Texas at Austin (January).

Texas Education Agency (1973a) *Directory of Schools Certificated Under Texas Proprietary School Act and Schools Offering Courses Approved for Veterans* (March).

_____(1973b) "Status Report: Texas Proprietary School Act" (May).

_____(1973c) *Guidelines and Minimum Standards for Operation of Texas Proprietary Schools* (revised) (October).

_____(1973d) "Texas Education Agency's Authority and Responsibility in the Administration of Vocational Education in Local Education Agencies in the State," Prepared at the request of the House Education Committee, Texas State Legislature (November 1).

_____(1973e) *Texas State Plan for Vocational Education, Fiscal Year 1974* (November).

Texas Education Code (1972) *Vernon's Texas Codes Annotated: Education* (Titles 1, 2, 3), St. Paul: West Publishing Company.

Texas Industrial Commission (1973) "Special Report on Industrial Start-Up Training." Prepared for the House Education Committee, Texas State Legislature (October).

Texas Research League (1972) *Texas Public School Finance: A Majority of Exceptions*, Austin (November).

THEIL, Henri (1971) *Applied Economic Forecasting*, Amsterdam: North Holland Publishing Company.

U.S. Bureau of the Census (1973) *Census of Population: 1970. Vol. I, Characteristics of the Population. Part 45, Texas*, Washington, D.C.: U.S. Government Printing Office.

U.S. Department of Health, Education, and Welfare (HEW) (1974) *Digest of Educational Statistics: 1973*, Washington, D.C.: U.S. Government Printing Office.

U.S. House of Representatives (1971) Committee on Education and Labor, Special Committee on Education, *Higher Education Amendments of 1971* (Hearings on H.R. 32, H.R. 5191, H.R. 5192, H.R. 5193, and H.R. 7248), Washington, D.C.: U.S. Government Printing Office.

APPENDIX A

DEFINITION OF POVERTY LEVEL

DEFINITION OF POVERTY LEVEL*

"The poverty statistics presented in this report are based on a definition originated by the Social Security Administration in 1964 and subsequently modified by a Federal Interagency Commission. The index provides a range of poverty income cutoffs adjusted by such factors as family size, sex of the family head, number of children under 18 years old, and farm and nonfarm residence. At the core of this definition of poverty is a nutritionally adequate food plan ('economy plan') designed by the Department of Agriculture for 'emergency or temporary use when funds are low.' The index allows for differences in the cost of living between farm and nonfarm families by setting the poverty thresholds for farm families at 85 percent of the corresponding levels for nonfarm families. The poverty income cutoffs are revised annually as reflected in the Consumer Price Index.

"In 1969, the poverty thresholds ranged from $1,487 for a female unrelated individual 65 years old and over living on a farm to $6,116 for a nonfarm family with a male head and with seven or more persons. The average poverty threshold for a nonfarm family of four headed by a male was $3,745.

"Poverty thresholds are computed on a national basis only. No attempt has been made to adjust these thresholds for regional, state, or other local variations in the cost of living (except for the farm-nonfarm differential described above)."

*Appendix B: "Definitions and Explanations of Subject Characteristics," Chapter C: "General Social and Economic Characteristics," *Census of Population: 1970. Vol. I, Characteristics of the Population, Part 45, Texas* (Washington, D.C.: U.S. Government Printing Office, 1973).

APPENDIX B

STUDENT ALLOCATION MODEL

TECHNICAL SUMMARY OF STUDENT ALLOCATION MODEL

The basic proposition set forth in the Huff model is that the probability *P* of a given alternative *j* being chosen from some specified set of choice alternatives *n* is proportional to u_j, where u_j is the utility of the jth alternative. That is:

$$P_j = u_j / \sum_{j=1}^{n} u_j \qquad (1)$$

For the purposes of this study u_j is defined as the services offered by a given institution of higher education divided by the difficulty of attending an institution at a given distance from the students' county of origin. Therefore:

$$P_{ij} = S_j \; T_{ij}^{-\lambda} / \sum_{j=1}^{n} S_j \; T_{ij}^{-\lambda} \qquad (2)$$

where P_{ij} = the probability that a student originating in county *i* will select to attend a college or university *j*;

S_j = the services provided at school *j* for education represented by the market share of all students attending college which was captured by that type of institution;

T_{ij} = the distance (difficulty factor) associated with the flow of students for a given type of institution applied to a specific origin, *i*, and destination, *j*, relationship;

λ = a "friction" parameter that is to be estimated empirically and associated with the distance or difficulty factor; and

n = the number of schools.

The expected number of students going from county *i* to a particular school *j* is proportional to the size of the student age population in county *i* times the rate at which students in county *i* attend college multiplied by the probability that a student originating at county *i* will be going to school *j*. That is:

$$E_{ij} = P_{ij} \cdot B_i \qquad (3)$$

where E_{ij} = the expected number of students that will be going from the *i*th county to the *j*th school;

P_{ij} = the probability of a student from county *i* going to school *j*; and

B_i = the total number of students in county *i* who will be going to college (College-Going Rate times [x] Student-Age Population).

The total expected number of college students received by a given school is derived by summing the expected student flows from all counties. That is:

$$T_j = \sum_{i=1}^{m} E_{ij} \qquad (4)$$

where T_j = the total number of students going to school *j* from all Texas counties;

E_{ij} = the expected number of students going from county *i* to school *j*; and

m = the number of Texas counties.

NATURE OF THE PARAMETERS

It has been shown in a number of studies that spatial movements display a distance-decay function, i.e., movements decline increasingly with distance. Therefore, interaction models such as the one being employed in this study raise distance to some power. This exponent is noted as λ (lambda) in equation (2) above. This is simply a recognition that, in general, students will select to go to the nearest college if school services and sizes are held constant.

If A_{ij} denotes actual student flows from county *i* to a school *j* and E_{ij} the expected flows, then a measure of correspondence between the two is simply the difference squared. The sum of squares for all paired values would be:

$$S = \sum_{i=1}^{m} \sum_{j=1}^{n} (E_{ij} - A_{ij})^2 \qquad (5)$$

The procedure for estimating λ consists of a Fibonacci search over a defined interval to find a value of λ which yields the lowest value of S, i.e., the lowest sum of squares. The optimal value derived by this successive approximation procedure is then weighed and averaged for each institution grouping that was used.

Having derived an optimal value of lambda, the expected student flows from each of the 254 counties to each group of schools can be derived.

The statistical measure that will be employed to determine the accuracy of the model predictions is Theil's inequality coefficient.* Normally, Theil's coefficient is used to measure the correspondence between actual and predicted *changes*. While this coefficient is being applied to absolute values in this case, as opposed to changes, the interpretation of the U coefficient is somewhat different but still of considerable value.

For this study, it is not unreasonable to measure the seriousness of the prediction error by its square, which is the mean-square-prediction error for the set of all possible *m* by *n* observations. Thus:

$$MSE = \frac{1}{m.n} \sum_{i=1}^{m} \sum_{j=1}^{n} (E_{ij} - A_{ij})^2 \qquad (6)$$

In order to obtain a measure which has the same dimension as the expected and actual student flows it is appropriate to take the square root of the mean-square-prediction error (RMS). This figure represents the average difference (plus or minus) in the number of students that are predicted to attend versus the actual attendance for all possible flows between counties and institutions.

Another use for the RMS prediction error is to compare predictions and "no-change extrapolations." This measurement can be achieved by dividing the RMS prediction error by the square root of the mean square successive difference of the actual values. The result is the positive square root of

$$U^2 = \frac{\frac{1}{m.n} \sum_{i=1}^{m} \sum_{j=1}^{n} (E_{ij} - A_{ij})^2}{\left(\sum_{i=1}^{m} \sum_{j=1}^{n} A_{ij} \right)^2} \qquad (7)$$

The positive square root of this value yields the inequality coefficient U. The range of U is zero to ∞. Theil claims that where this inequality coefficient is significantly greater than one, it indicates that predictions are worse than those which would be made by a naive "no-change extrapolation" of past data.

*Henri Theil, *Applied Economic Forecasting* (Amsterdam: North Holland Publishing Company, 1971), pp. 26-32.

APPENDIX C

RESPONSES TO REGIONAL POST-SECONDARY EDUCATION SURVEY

REGIONAL POST-SECONDARY EDUCATION SURVEY

RESPONDENTS

Public/Private Colleges and Universities

Austin Community College
Concordia Lutheran College
Huston-Tillotson College
Incarnate Word College
St. Edward's University
St. Mary's University
San Antonio College
Schreiner Institute
Southwest Texas State University
Southwestern University
Texas Lutheran College
The University of Texas at San Antonio
Trinity University

Proprietary Schools

Capitol City Trade and Technical School*
CBM Education Center of San Antonio, Inc.
Durham's Business College (Austin)
Elkin's Institute in San Antonio, Inc.
Hallmark Aero-Tech
Jacki Nell Executive Secretary School
Parish Draughon's Business College and Technical Institute
San Antonio College of Medical and Dental Assistants, Inc.
Texas Vocational School

*Although included in the mail-out, Capitol City Trade and Technical School was inadvertently omitted from the institutional list in Question 1.

RESPONSES TO QUESTION 1

Table A: Number of institutional interactions, by type, between each responding institution and other institutions in the CASPR and AASPR region.

Responding Institution	Public/Private Colleges and Universities					Type of Interaction	Proprietary Schools				
	1	2	3	4	5		1	2	3	4	5
Public/Private											
Austin Community College	4	1	4	4	7		0	0	0	0	0
Concordia Lutheran College	0	0	0	10	2		0	0	0	0	0
Huston-Tillotson College	7	0	3	14	14		0	0	0	0	0
Incarnate Word College	2	0	5	4	8		0	0	0	0	0
St. Edward's University	3	0	9	10	15		0	0	0	0	0
St. Mary's University	3	0	7	9	8		0	0	0	0	0
San Antonio College	14	8	9	8	11		4	2	1	0	2
Schreiner Institute	0	0	0	0	10		0	0	0	0	0
Southwest Texas State University	15	2	14	15	15		1	2	0	0	9
Southwestern University	7	0	0	11	8		0	0	0	0	0
Texas Lutheran College	3	0	4	6	14		0	0	0	0	2
The University of Texas at San Antonio	7	0	7	3	10		0	0	0	0	0
Trinity University	8	0	12	14	15		0	0	0	0	3
Proprietary											
Capitol City Trade and Technical School	0	0	0	0	0		0	0	0	3	4
CBM Education Center of San Antonio, Inc.	0	0	0	0	0		0	0	2	2	0
Durham's Business College (Austin)	0	0	0	0	1		0	0	7	0	8
Elkin's Institute in San Antonio, Inc.	0	0	0	0	0		0	0	0	6	7
Hallmark Aero-Tech	0	0	0	7	0		0	0	0	9	4
Jacki Nell Executive Secretary School	0	0	0	0	3		0	0	0	0	1
Parish Draughon's Business College and Technical Institute	0	0	0	0	2		1	0	4	4	1
San Antonio College of Medical and Dental Assistants, Inc.	0	0	0	0	0		0	0	0	10	13
Texas Vocational School	0	0	0	1	0		0	0	0	8	8

Table B: Institutions in the CASPR-AASPR region with which responding institutions indicate interaction.

Institution Indicated By Respondents*	Public/Private Respondents					Type of Interaction	Proprietary Respondents				
	1	2	3	4	5		1	2	3	4	5
Austin Community College	4	2	3	4	8		0	0	0	0	0
Concordia Lutheran College	5	0	4	6	7		0	0	0	0	0
Huston-Tillotson College	5	0	3	6	7		0	0	0	0	1
Incarnate Word College	6	1	6	8	9		0	0	0	0	0
Our Lady of the Lake College	7	1	7	10	11		0	0	0	0	0
St. Edward's University	6	1	5	7	6		0	0	0	0	1
St. Mary's University	6	1	6	8	9		0	0	0	0	0
St. Phillip's College	4	0	4	6	9		0	0	0	1	0
San Antonio College	3	1	5	6	9		0	0	0	0	0
Southwest Texas State University	2	1	3	7	8		0	0	0	0	1
Southwestern University	4	0	3	5	7		0	0	0	0	0
Schreiner Institute	2	0	2	3	6		0	0	0	0	0
Texas Lutheran College	4	0	5	7	10		0	0	0	0	0
The University of Texas at Austin	7	1	7	10	11		0	0	0	0	1
The University of Texas at San Antonio	3	1	5	6	10		0	0	0	0	0
Trinity University	5	1	6	9	10		0	0	0	0	0

*Proprietary schools are not included because the number of respondents noting interaction with such institutions was minimal.

RESPONSES TO QUESTION 2

Table C: Organizations and agencies in the CASPR-AASPR region with which responding institutions indicate interaction.

Organization/Agency Identified by Respondent	Public/Private Respondents						Type of Interaction	Proprietary Respondents					
	1	2	3	4	5	6		1	2	3	4	5	6
CASPR	6	2	1	0	1	0		2	1	0	0	0	0
AASPR	7	4	1	0	1	0		0	0	0	0	0	0
Coordinating Board	11	9	5	1	5	0		0	0	0	0	0	0
Texas Education Agency	11	10	10	0	2	0		5	4	7	0	1	0
Association of Independent College and Universities	10	9	4	9	4	5		1	0	0	0	0	0
Texas Public Junior College Association	5	3	1	2	1	2		0	0	0	0	0	0
Advisory Council for Technical-Vocational Education	3	2	1	1	1	1		1	1	0	0	0	0
State Legislature	10	5	3	0	4	2		0	0	0	0	0	1
Governor's Office	9	6	3	0	3	2		1	1	0	0	0	0
Texas Employment Commission	8	5	2	0	1	0		3	1	2	0	0	0
Texas Industrial Commission	3	2	1	0	0	0		0	0	0	0	0	0
OIS	4	1	1	0	0	0		0	0	0	0	0	0
Proprietary School Advisory Commission	2	1	0	0	0	0		6	2	3	0	0	0